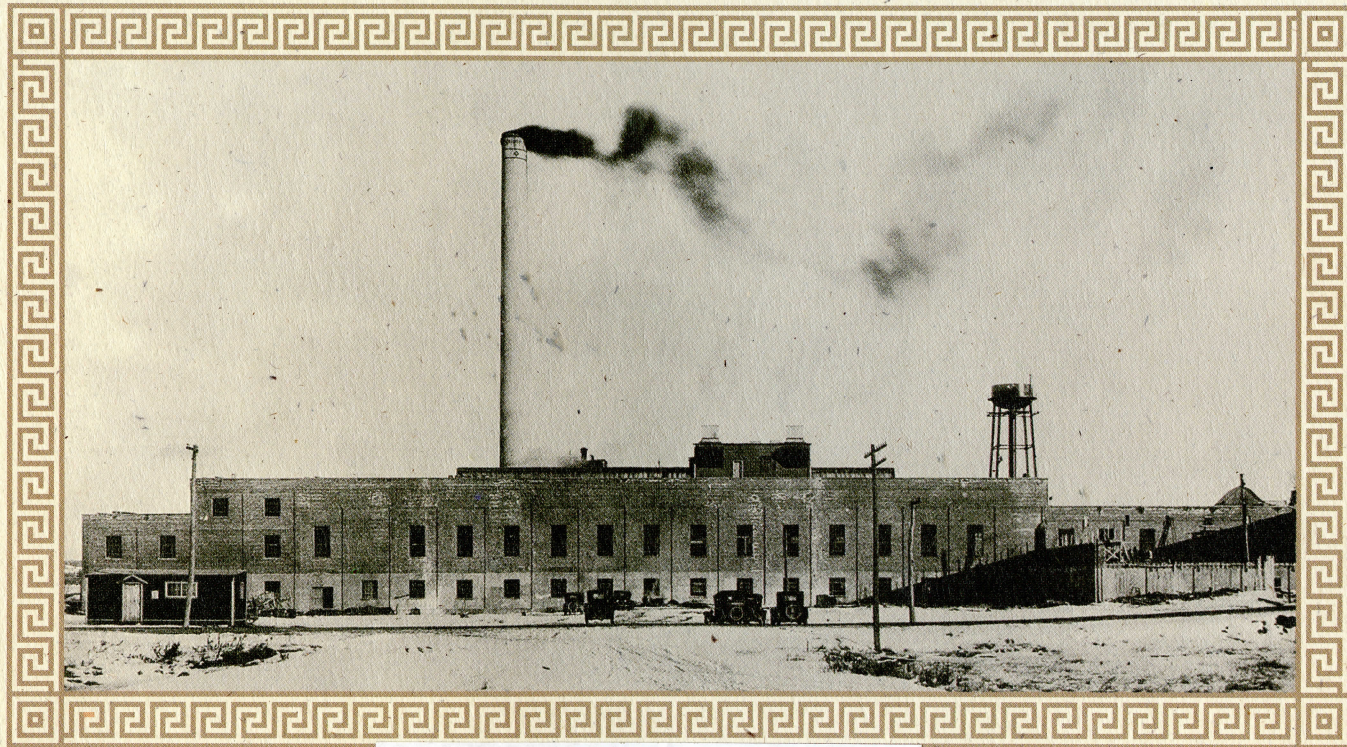


MADAWASKA PUBLIC LIBRARY



T 24712

MADE IN MADAWASKA



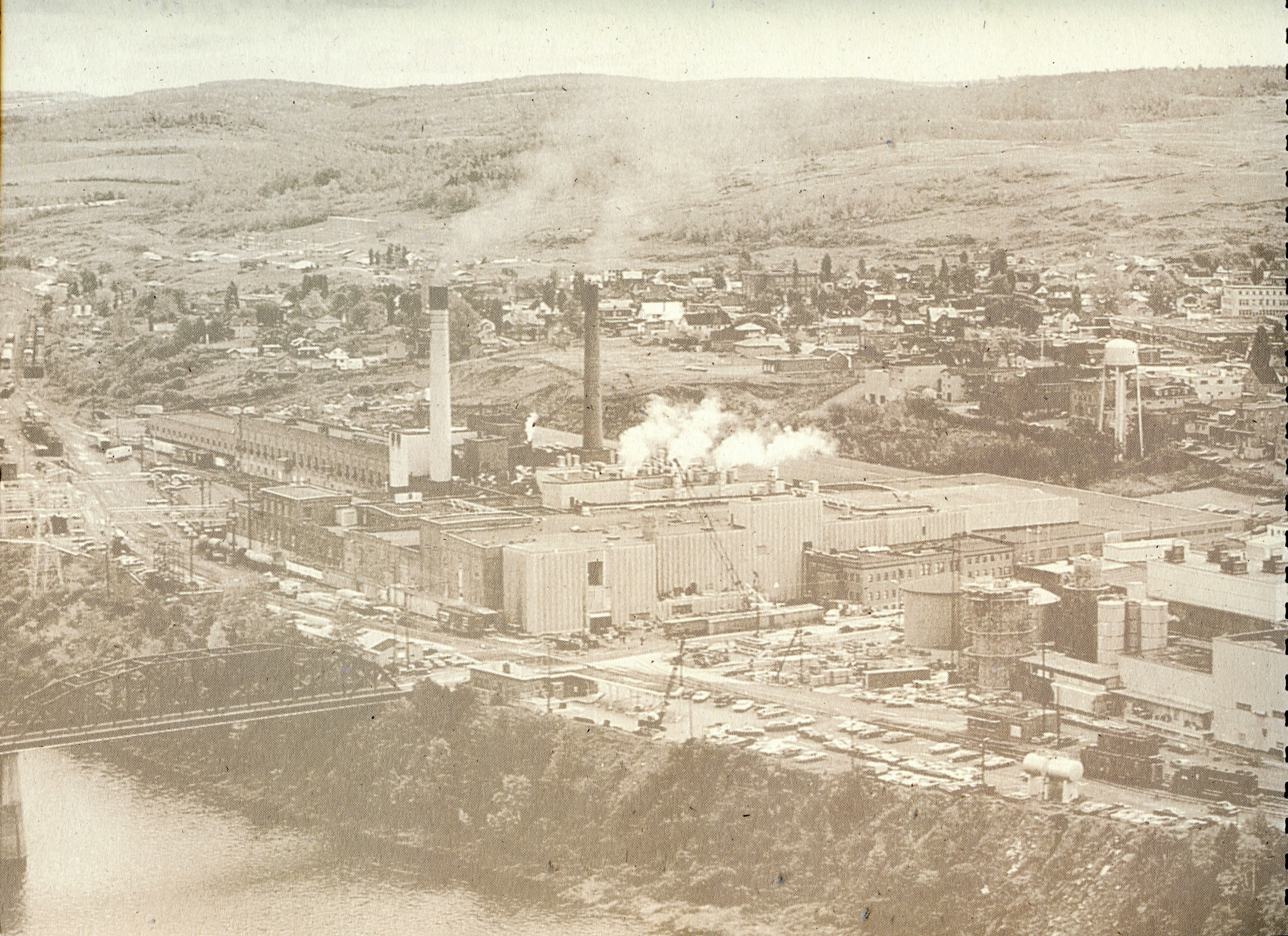
FOR REFERENCE

Do Not Take From This Room

PEOPLE ~ PAPER ~ PROGRESS

1925 ~ 2000

ME
REF
974.1
MAD



MADE IN MADAWASKA

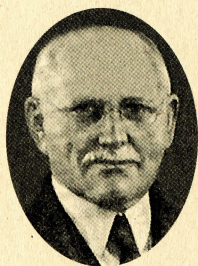
*It's a statement that stands
for pride of workmanship and dedication
to the craft and science of papermaking.*

*For the Town of Madawaska
and for Fraser Papers Inc.,*

*Made in Madawaska
is a metaphor for excellence.*

*For seventy-five years,
the people of the Madawaska Mill
and the people of the Town
have pulled together to make a
good living and a great place to live.*

*That's quite an accomplishment
and one that we believe will continue
in the 21st century.*

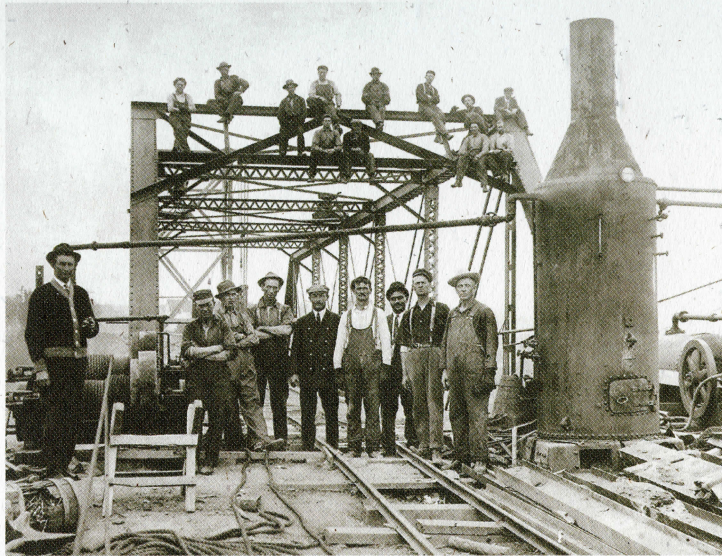


Archibald Fraser

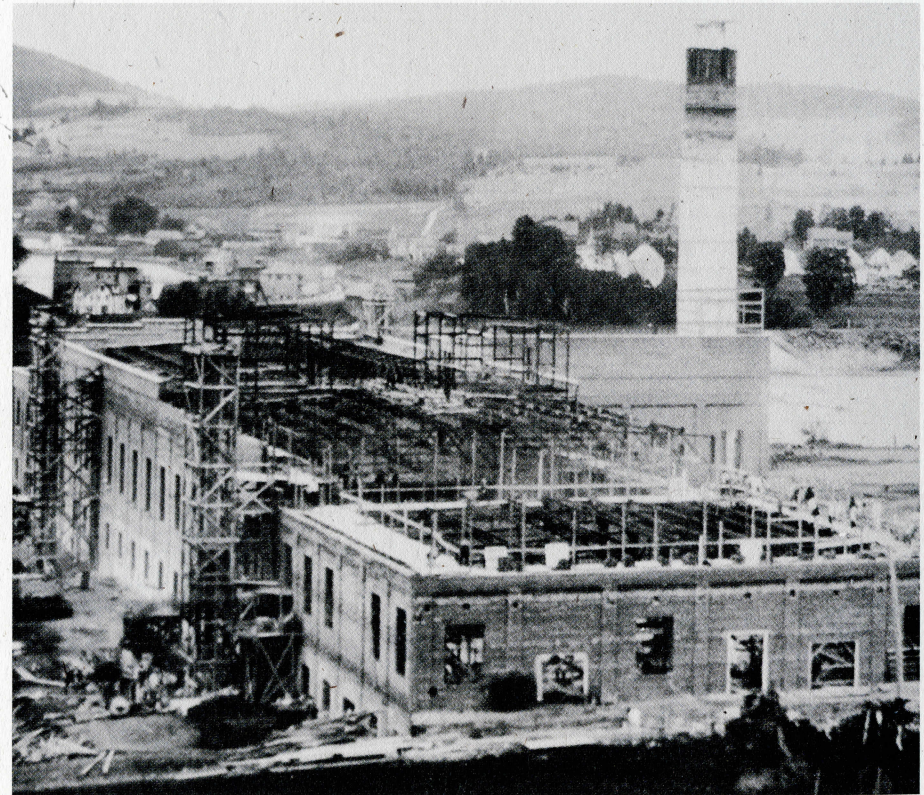
THE POSSIBILITIES OF BLACK SPRUCE

In a 1937 article entitled "New Brunswick Lumber Kings," the St. John Telegraph-Journal described Archibald Fraser as "one New Brunswicker quick to the possibilities of black spruce—not as an export commodity, but as a raw material suited to and waiting for home manufacture of paper." That opportunity was realized in October of 1918 with the opening of the Edmundston Pulp Mill. This was the first Fraser foray from lumber to paper. It was built to convert black spruce into a bleached sulphite pulp to meet a burgeoning demand in the paper industry. By 1921, the plant had a daily capacity of 150 tons of bleached sulphite pulp. It was only logical that the Fraser Companies would make the move from pulp to paper. And in 1925, they did.

Across the St. John River, lay the Town of Madawaska, Maine, a strategic site for the Fraser foray into paper. Sulphite pulp entered the United States from Canada free of duty while there was a high tariff on the entry of paper. Fraser wasn't the first paper mill to exploit duty-free pulp, but it certainly had a better idea. While other paper companies imported dried pulp and re-watered it for papermaking, the Fraser plan called for linking the Edmundston Pulp Mill and the proposed Fraser paper mill by a pipeline across the International Bridge. Wet pulp would flow directly to the paper mill. This was an economic advantage that would enable the Madawaska Mill to compete successfully in the American fine paper market. Incorporated as a subsidiary of the Fraser Companies, under the New Brunswick Companies Act, Fraser Paper Ltd. obtained a license to do business in the State of Maine for the purpose of manufacturing sulphite bond and waxing papers for distribution in the United States. It had to happen. And in 1925, it did.

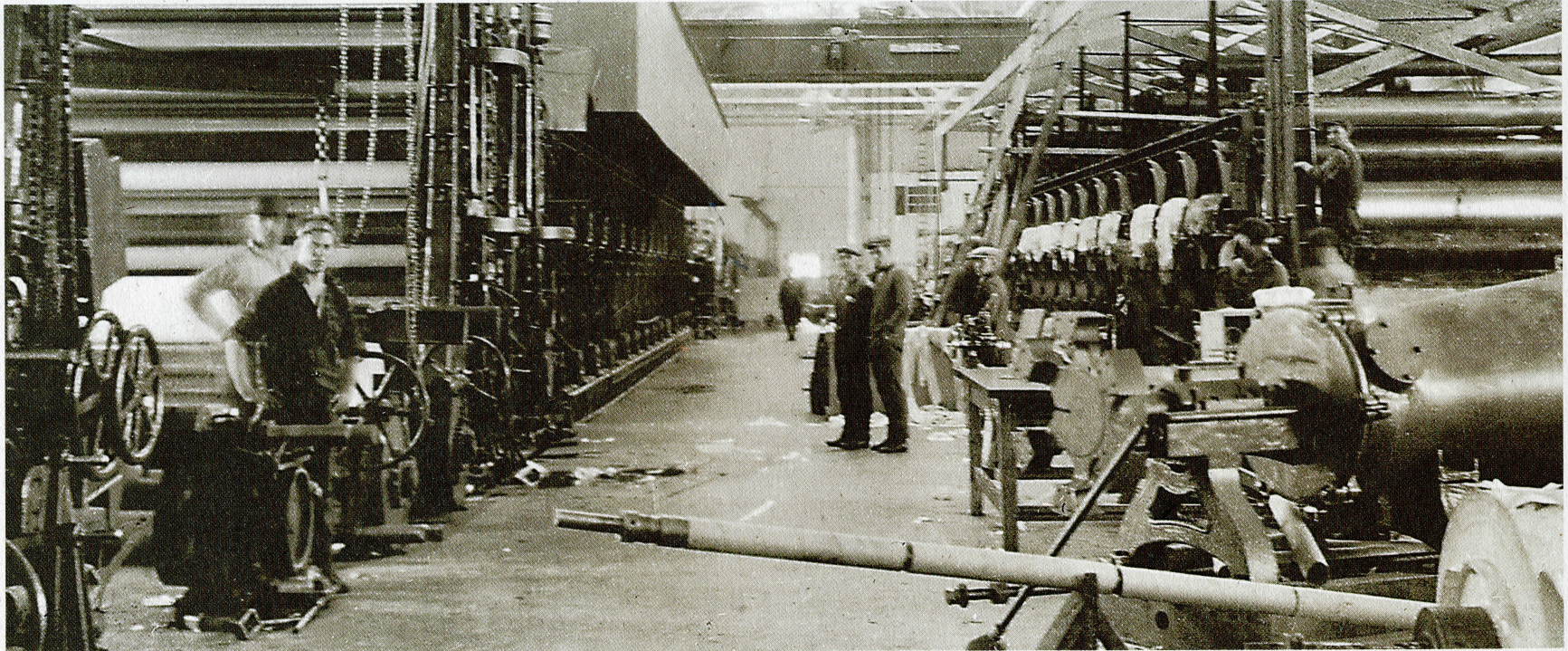


In 1921, the International Bridge is built linking Madawaska, ME with Edmundston, NB.



Fraser Papers mill construction,
on July 10, 1925.

Madawaska Public Library
393 Main Street
Madawaska, ME 04756
(207) 728-3606



December 15, 1925 -
The installation of paper machines
no. 1 and no. 2 is underway.

ROARING TWENTIES!

Dating back to 1785, Madawaska was a sleepy agricultural community of, at most, 1900 residents when Fraser came to town. With a projected cost of \$2.5 million, the construction of the Madawaska Mill created an instant boomtown. The Town of Madawaska would double its population in ten years. The jazz age was in full swing. It was a decade of incredible prosperity and hope. Businessmen thought big and spurred on by an unprecedented industrial expansion built their dreams. In 1925, the industrial age started transforming pastoral Madawaska into a bustling mill town where paper was king.

Under the direction of Archibald Fraser, son of Donald Fraser, the founder of the lumber operations that became Fraser Papers, a two-machine paper mill was designed to take advantage of readily available electric power and water from the St. John River. Construction started in May of 1925. Just five months later, on October 25th, the first paper machine—actually PM2—was started. Four months later, on January 26, 1926, PM1 came on line, giving the mill an annual capacity of 20,000 tons of bleached sulphite paper. The mill employed 200 workers. Virtual twins, today PM1 & PM2 specialize in making lightweight opaque publishing papers in the range of 20# to 60#, based on 3300 ft².

Lured by construction jobs and the prospect of permanent work at the new mill, families poured in from all over the area and created an instant housing crisis. So sudden was the need for housing that farm houses were moved into town. One house-moving entrepreneur became known as "Six Times Madore," who with teams of oxen and a bit of luck brought entire houses to town. Homes on Third, Fourth and Fifth Avenue mushroomed literally overnight.

As usual, the housing crisis quickly led to a school emergency. The estimated 600 students who lived in Madawaska prior to the arrival of Fraser were educated in a series of eighteen one-room school houses. The sons and daughters of the workers drawn to the Mill quickly overwhelmed them. As one school teacher put it, "you can't teach in a place like this, but you keep school."

Churches felt the crush of new worshippers too. Roman Catholic services were held at the Rialto Theatre until the Diocese could accommodate people with the construction of a new church. So used to worship in the theatre, movie-goers on Sunday night, out of habit, would genuflect in the aisle before taking a seat. Genuflecting at the movies became an embarrassment of the past with the opening of the first St. Thomas Church in the fall of 1930.

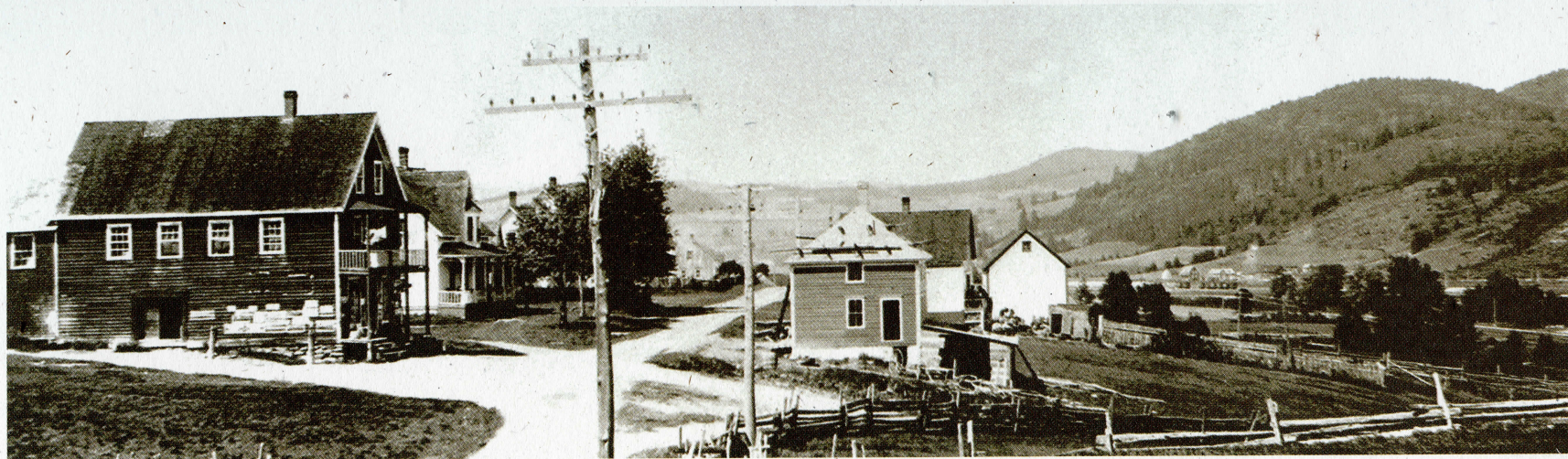
Still, quaint small town customs remained. Until the early 1930s, excise taxes could be paid in Mr. Frank Fournier's home; town taxes could be paid at Levite R. Daigle's place and town clerk functions were carried out of Mr. Antoine Picard's home.

The hills and ridges of Madawaska made laying out streets a challenge and walking to work at the mill in the river valley an adventure, especially during an icy winter. Main Street developed along the ridge, but so steep is the hill that the mill is all but invisible. Little did passerbys know that a giant was growing in the river valley.

Demand was so strong for paper that, by 1928, two additional machines were installed at the new mill and an entirely new facility, to be known as the Catalog Mill was built. But, first came the two additional machines for the Bond Mill. PM#3, 202 inches wide and PM#4, 226 inches wide were designed to produce bond, offset, register bond, waxing papers and converting grades. Nearly identical when installed, Paper Machines 3 and 4 are now two very different machines. PM#3 makes specialty products like Fraser Bladepak, preferred by Ralston Purina for premium pet food packaging and release liner for pressure sensitive labels and other specialty applications. PM#4 now makes premium lightweight opaque grades used for Bibles.

The Catalog Mill, on the other side of Bridge Street, went up quickly as Fraser rushed to coordinate production with the completion of the mechanical groundwood pulp mill under construction in Edmundston. Originally built to produce groundwood specialties, the first of the two machines went on line in 1928. The first, a 226-inch wide groundwood catalog machine produced paper for the Sears, Roebuck & Co. catalog. Now designated PM#5, today this machine makes supercalendered release liner, the peel-away portion of labels destined for high-speed packaging of consumer products like Windex. The second machine to be installed at the Catalog Mill, a 226-inch groundwood machine specialized in telephone directory paper. Now known as PM#6, it makes lightweight coated groundwood publication paper for magazines, such as PC World and many direct mail catalogs.

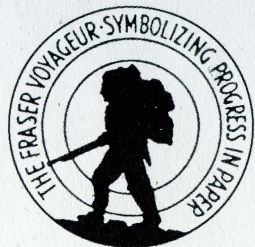
Important foundations were laid between 1925 and 1930. Six of the eight paper machines that make up today's Madawaska Operations were installed in five short years. It was the beginning of a long and continuing history of supplying high quality paper to publishers and printers. Unfortunately, this substantial increase in capacity came on line just in time for what would become known as the Great Depression, an industrial decline that seemingly undid the gains of the previous decade.



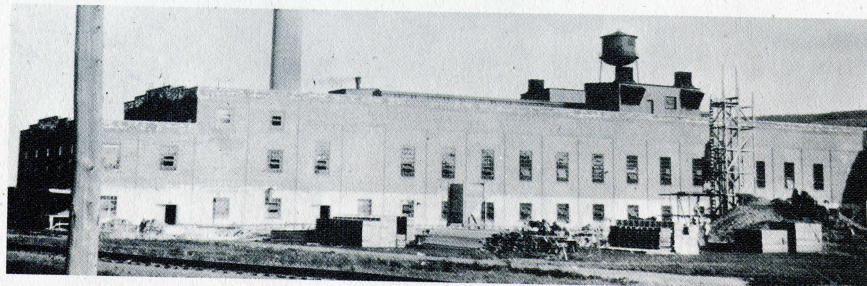
Main Street, Madawaska. Early 1900.
Fraser Papers would later establish
itself near the river on the right.



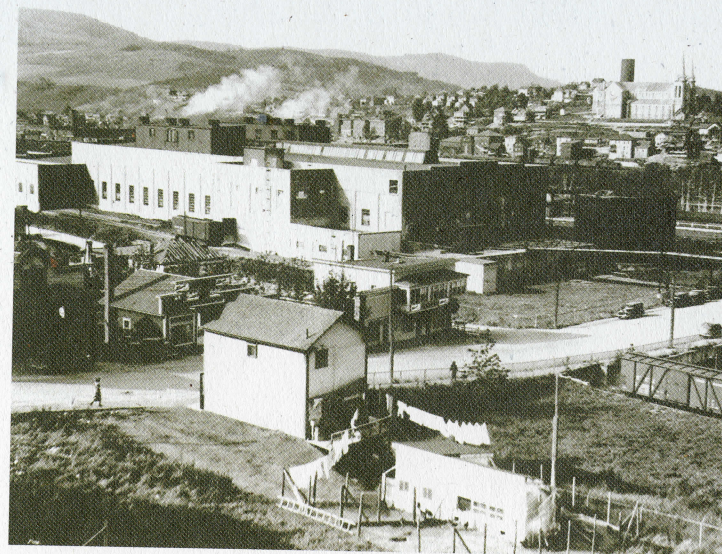
In answer to the housing crisis,
Fraser Papers built homes for their
employees on 15th Avenue.



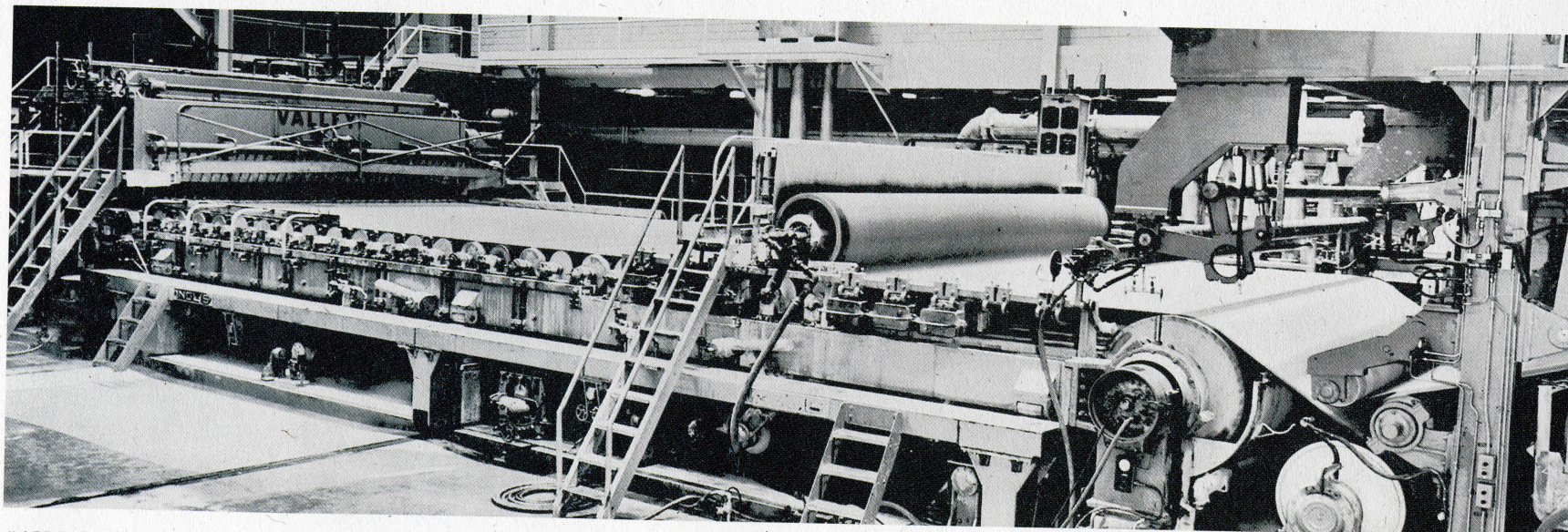
1938



In 1930, paper machines no.3 and no.4 are added.



1938, Bridge Street, Madawaska, Me. The white building in the foreground was Mother Martin's Place and later became the first Fraser Employee Credit Union. Across the street is the Guerette Hotel and Joe Rioux's Border Beer Parlor.



#6 PM, Catalog Mill.

DEPRESSING THIRTIES

The combination of capacity and slumping prices turned deadly for Fraser. Not only had Fraser poured millions of dollars into the Madawaska Mill, but their new pulp mill in Atholville, New Brunswick was about to come on line. The financial upheaval of October 1929 sent prices into a tailspin reaching levels not seen since 1905.

In 1930, concerned for the financial condition of the Fraser Companies, bank and bond-holders demanded a General Manager approved by them be appointed. That person was K.S. MacLachlan, then Managing Director of Alliance Paper, Ltd. who would later succeed Archibald Fraser upon his death in 1932.

At about the same time, Aubrey Crabtree signed on as General Superintendent of Fraser Papers, Ltd.. These men shepherded Fraser through the depressing thirties, a time when the products produced by the mill were basic, products such as Snowland Bond, a watermarked sheet that acquired brand name status with sufficient demand to keep some of the machines running in the bond mill. Prices hit an all-time low in 1932 with the closure of pulp and paper facilities throughout the Northeast.

By 1933, prices and demand were better, sufficient for the Madawaska Mill to operate on a five-day per week schedule of one eight-hour shift per day. While the financial reports of the company showed continual improvement from 1934 until 1936, the press of creditors required a further financial reorganization. It wasn't a good decade, for business or people and it ended with the death of Donald Fraser, Jr. early in 1940, the last surviving son of founder, Donald Fraser.



PAULA THE POLAR BEAR says...

Snowland Bond

has a whole family of uses in the rotary printing field
...meets tests made for office forms and advertising folders...
colors—bright or white as an iceberg.

Made in our Madawaska Mill, in Maine

FRASER PAPER, LIMITED NEW YORK • Chicago • Cleveland

FRASER GOES TO WAR

Following Canada's declaration of war on Germany in September 1939, the Dominion government sought experienced executives for military service. When K.S. MacLachlan answered the call, Aubrey Crabtree was elected General Manager of Fraser Companies, Limited in March 1940.

In 1941, the war created a strong demand for pulp and paper along with restrictions on the supply of certain essential raw materials and chemicals. Even so, production was increased on PM#1 and PM#3 to meet demand. Rationing made papermaking a challenge, especially with the overseas departure of experienced machine hands as they headed for wartime military service. Women, for the first time began replacing men in and around the Madawaska mill, especially in the finishing room.

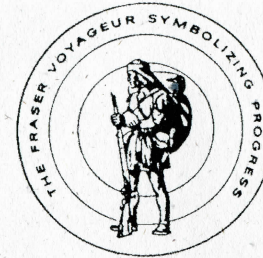
Two important events occurred in 1944, one of benefit to stockholders and the other of benefit to employees. For the first time in fifteen years, the Fraser Companies resumed payment of a dividend, a casualty of the depression and war years. And, for employees, Fraser introduced its first pension plan, an employer-employee shared contribution plan that took into consideration the years of service up to the inauguration of the new plan. A special fund was provided in consideration of service prior to the plan.

In 1948, Fraser developed and installed the first trailing blade coater, a 192-inch machine that started a new era in the manufacture of coated paper. The trailing blade coater would make Fraser the "king of breadwrap," with the introduction of Fracote, a superior foodwrap grade. This was truly a technological breakthrough and was a closely guarded secret for several years. The trailing blade coater produced a smoother surface for printing at incredibly higher speeds than any other coating method. This coater operated at the mill until 1975. Even today, trailing blade coating continues to be one of the standard ways of applying functional coatings with precision.



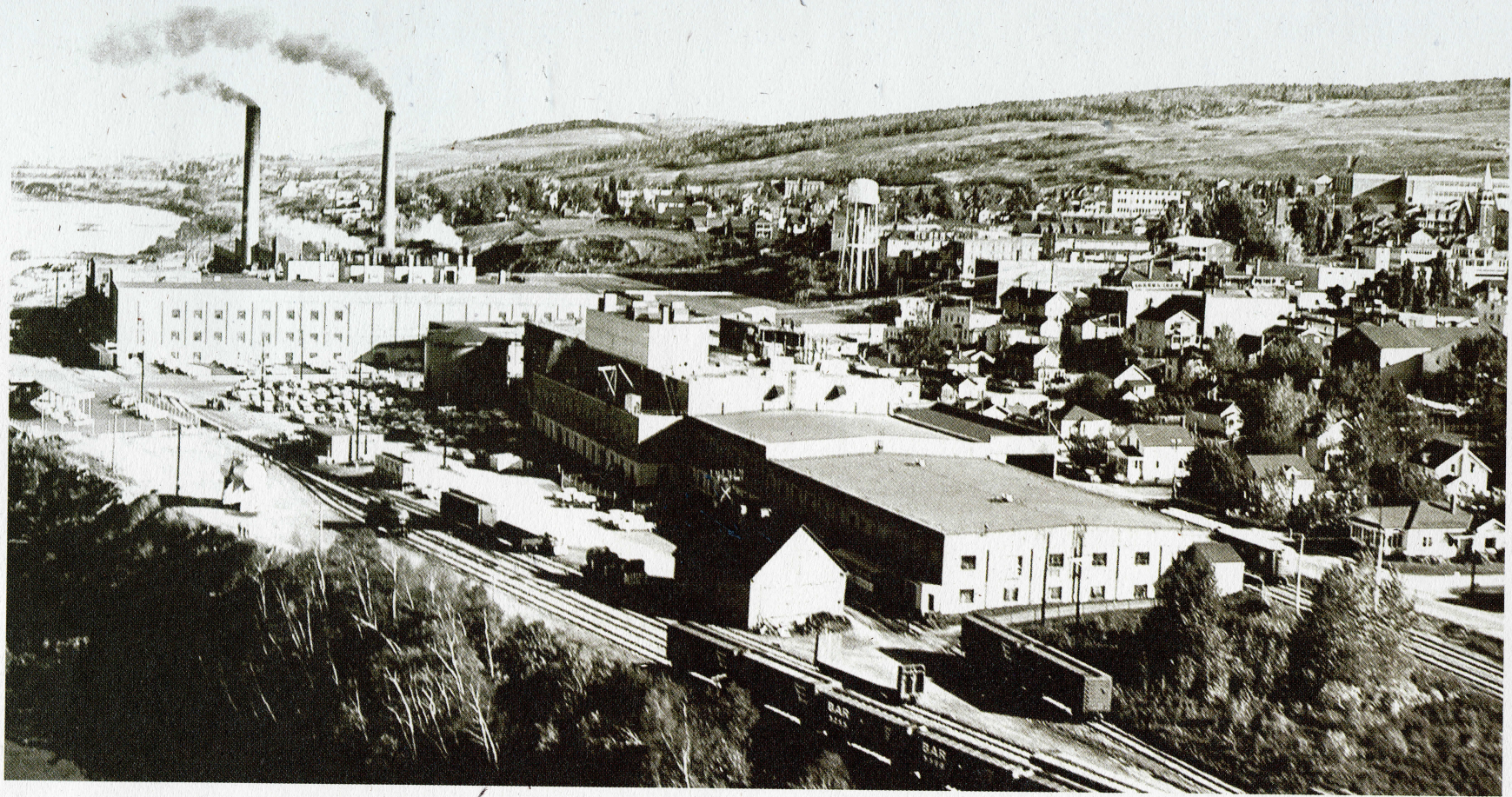


Paper was hand counted and packaged by the finishing room employees.

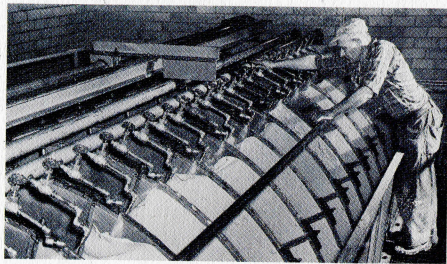


1946



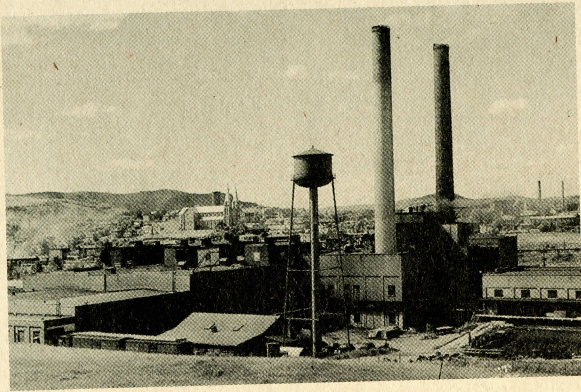


Fraser Expansion - 1956.



Groundwood Save All,
Catalog Mill, 1957.

THE PRODUCTIVE FIFTIES



*Returning from war, Fraser got its employees back. They settled into making paper and making babies! Yet, one had to admit that the wartime production hardly let up as a new consumer optimism was quickly established with an ensuing demand for paper products of all types. The Madawaska Mill was humming. The Summer 1951 edition of *The Fraser Voyageur* put it this way:*

"Here are made vast quantities of fine quality paper, constantly being converted into far flung and familiar essential products in every day use all over the United States... specialty papers for safety checks, drinking straws and drinking cups, gift wraps and greeting cards...directory paper for the telephone book of a great American metropolis... catalog papers for one of the country's leading mail order houses...strong, sanitary papers for wrapping millions of loaves of bread and for protecting many other vital foods...and too, literally an avalanche of paper destined for the multiple forms and envelopes, the tablets and letterheads, the advertising pieces and printed circulars, the maps and graphs, and specification books, the financial reports and company magazines, the instruction sheets and inter-office memos that keep the various facets of our country's business operations and industry activities moving at top speed..."

*"One of the unique and interesting features of Fraser's Madawaska Mill is that the fine quality pulp used for making its paper products, is piped across the International Bridge from Fraser Companies' own pulp mill in Edmundston... through a huge gleaming conduit that Lowell Thomas and Rex Barton call a silver serpent, in their book, *In New Brunswick You'll Find It.*"*

In 1954, the Winter edition of *The Fraser Voyager* announced the installation of "A Marvel of Modern Engineering Skill." The article referred to the "new Number Four" paper machine that replaced its predecessor that was shut down in June of 1953. The new machine was designed to produce a range of lightweight and medium weight papers from bleached sulphite pulp. "With overall dimensions of some 300 feet in length and 15.5 feet in width, it is designed and physically balanced to operate up to 2,000 feet per minute. It will add some 10,000 tons of paper to the mill's annual capacity." The new machine was described with awe of the "anything is possible" attitude of the 1950s: "Operating at full speed, in 24 hours it consumes enough electricity to meet the daily needs of a community of 10,000 people and enough water to satisfy the daily requirements of a city with a population of 30,000. Converting a mixture of 99.5 % water and .5% wood fiber into a smooth finished sheet of paper in 30 seconds, this paper-making machine is one of the most modern examples of the paper manufacturer and machine manufacturer combining resources to meet exacting demands for various grades of paper throughout the nation."

Today, equipped with the latest in technology, in the form of a breast-roll shake, and an automated version of the tried and true dandy roll, PM#4 is still a modern marvel. The light and ultra-light Bible grades it makes have helped Fraser become the largest producer of Bible papers in North America.

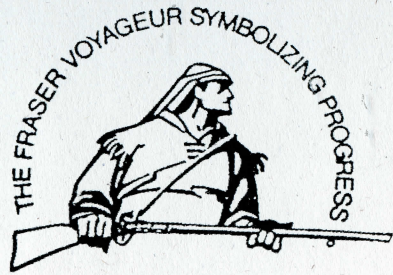
Fraser papermakers at the Madawaska Mill thought along the lines of the industry. Paper was a commodity and you wanted to make it in volume. Yet, the Madawaska Mill was developing a reputation for making some very specialized products. In fact, some of these grades, such as bread wrap and the lightweight sulphite bond paper made at the mill were the precursors to a whole generation of true specialties and the basis of a business strategy.



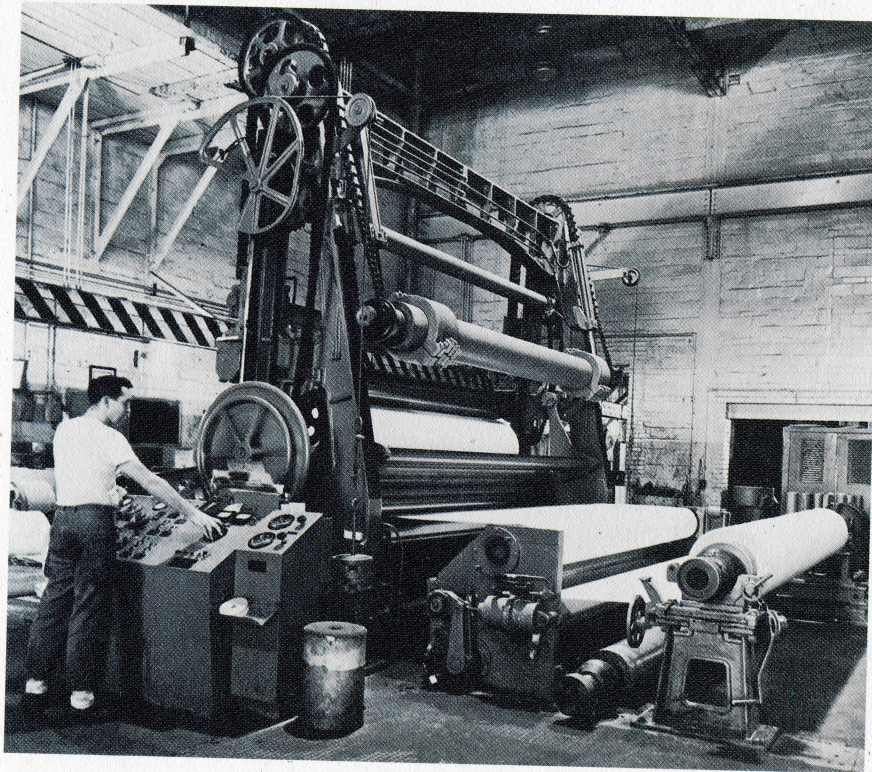


1955 - Open House guests look at Bond Mill Fourdrinier which filters water out of stock before going to the presses.

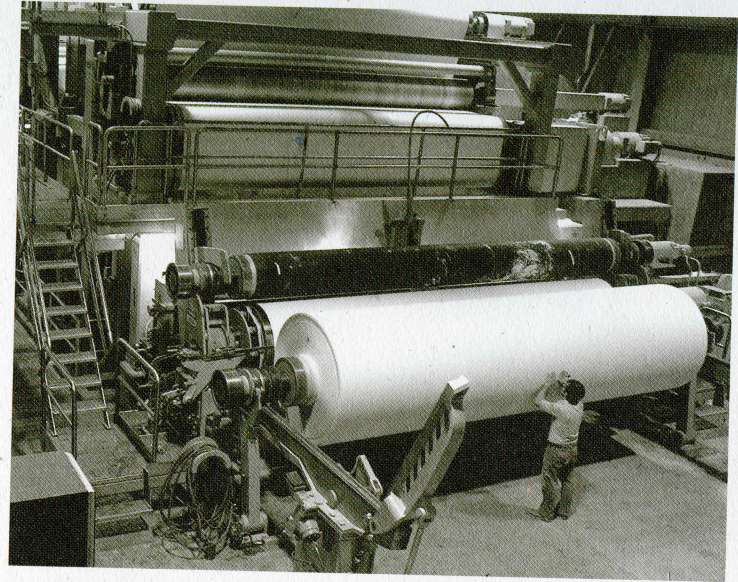




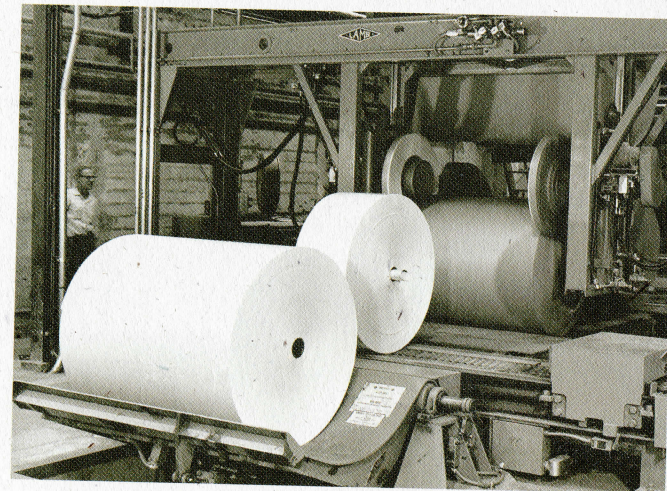
1968



Bond Winder.



Overall view of the new
C-3 Groundwood paper Coater
from the reel end.



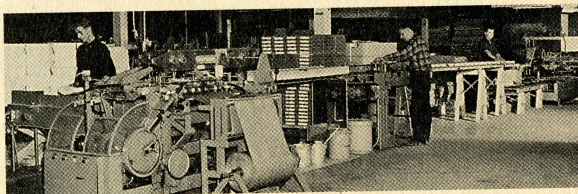
Bond wrapping machine with automatic roll wrapper.

THE SWINGING SIXTIES

Papermaking was hard work, not that it isn't anymore. But, the papermakers of Madawaska worked hard and played hard. With numerous bars and taverns, Madawaska was quite the party town. One such establishment, The Northstar, perhaps due to its close proximity to the mill, seemed to be considered a Fraser conference center. No one knows just how many important decisions were made over beers at the Northstar, but the place is legendary.

Unlike today's around-the-clock operations, the Madawaska Mill had downright genteel hours, for a paper mill. So there was time for partying. The mill shut down for weekends. It was unheard of to work on Sunday. And the mill shut down for important holidays too, including Labor Day and the fourth of July.

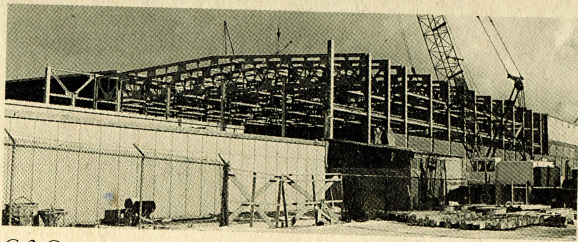
A Wage Rate Schedule from 1964 calls for the Machine Tender on PM #5 to receive \$3.84 an hour. The Back Tender commanded \$3.47 an hour. The Third Hand pulled down \$2.95; Fourth Hand got \$2.48; Fifth Hand took in \$2.32 and the Sixth Hand pocketed \$2.11 for each hour worked. Women still were limited to certain jobs like Head Label Girl (\$1.98 per hour) and Floor Lady (\$2.03 per hour) and didn't have equal earning power with the men.



Lenox machine cuts and counts paper automatically - 1960.

Still, the Madawaska Mill was where you wanted to work and make a career. The Catalog Mill was still growing after 35 years. Paper Machine #7 started in 1960, a large machine at 234" wide with an operating speed of 2,000 feet per minute. At that time it averaged 175 tons per day of uncoated fine paper or 155 tons per day of ground-wood directory paper. At that time, the new machine was considered one of the industry's most modern paper machines. Today PM#7 makes thermal transfer grades and lightweight coating base stocks.

In 1964, Fraser honored its "25-Year Men," and presented long service watches to the largest number of men to receive the award at one time. At that time, 229 men had received the award and 145 of those were still working. The youngest man ever to win a 25-year watch was Albenie Roussel, who received his at age 39. He started working in the Edmundston mill when he was just 13 years old.



C-3 Coater. Construction is in progress.

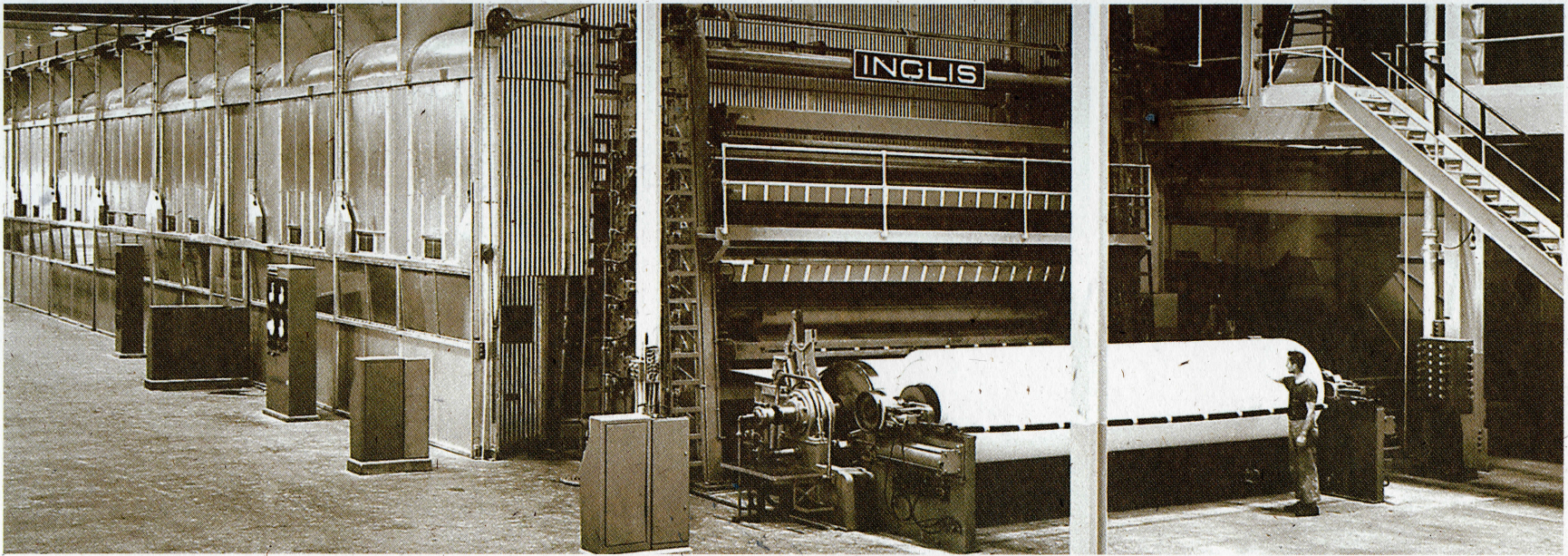
In 1968, Fraser extended the range of its blade coating capabilities to coated groundwood specialties. After extensive marketing research, the Company installed the C-2 Coater, a 212" off-machine blade coater that would establish Fraser in the market for lightweight coated groundwood papers for magazines and catalogs.

*In the popular film, *The Graduate*, a young man is offered some career advice about the business in which he should seek his fortune. "Plastics" intoned his adviser. "Plastics." That was prophetic advice and a warning about the plastic revolution that was just beginning to affect the Madawaska Mill. One story from the 1960s has a Fraser salesman reporting that the idea had been suggested that bread be put in clear plastic bags—without breadwrap. When word got back to the mill, the story prompted laughter. After all, the Madawaska Mill was king of breadwrap and no one could envision bread in plastic bags. Less than two years later, the story goes, breadwrap was dying out and bread was, indeed, being sold in plastic bags.*

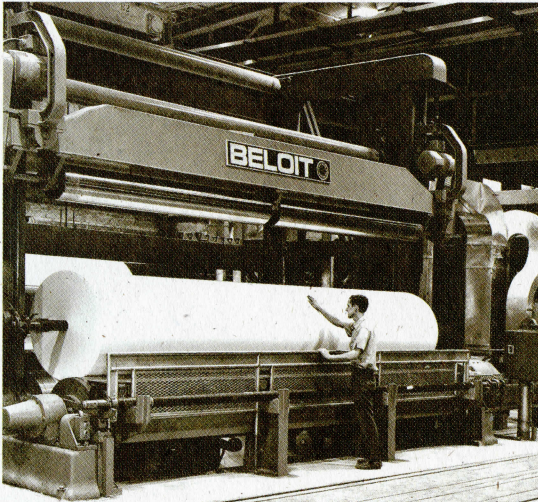
At one time, Fraser was king of S&H Green Stamps, the little green perforated stamps that had everyone licking and pasting into little books so they could trade for "free" merchandise. For many years, up to 95% of all trading stamps were printed on paper made in Madawaska. Does anyone know who gives out Green Stamps today?

It was one of those things, another in a long series of a sea of changes that would rock the paper industry and transform the Madawaska Mill. Plastic replaced a lot of things that were formerly made of paper. Perhaps the first technology-driven revolution, it would not be the last. The anticipation of technological change and the ability to adapt to it would define the resiliency and genius embodied by the papermakers of Madawaska.

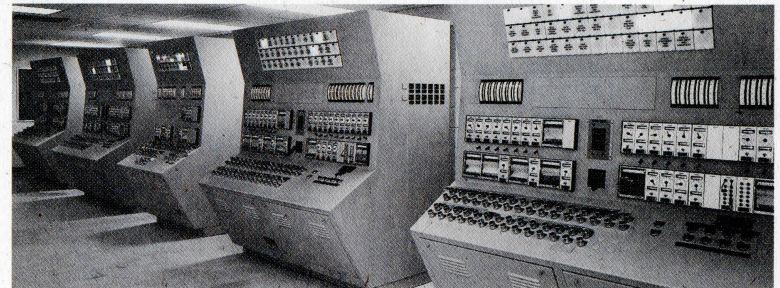
By 1970, the demand for groundwood papers was straining the capabilities of the mill's two groundwood paper machines. To finance an expansion in groundwood papers, Fraser sold the Newcastle kraft market pulp mill and used the proceeds to make a big idea reality.



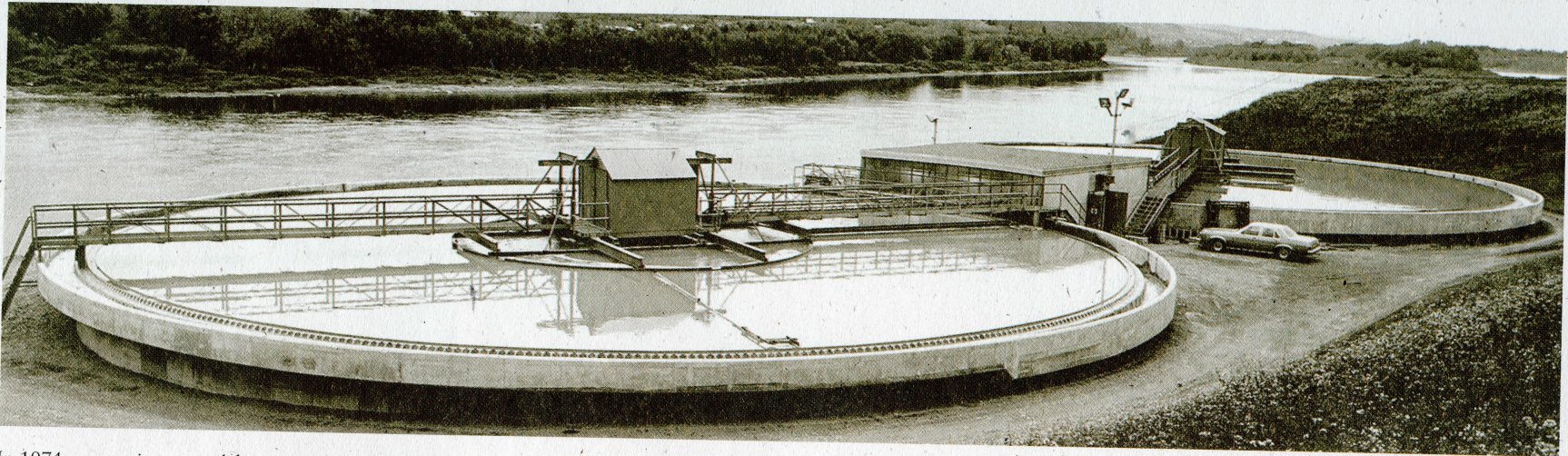
With the addition of #7 PM, Fraser Papers produces upwards of 190,000 tons a year of fine papers.



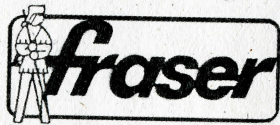
Catalog Coater Winder - 1966.



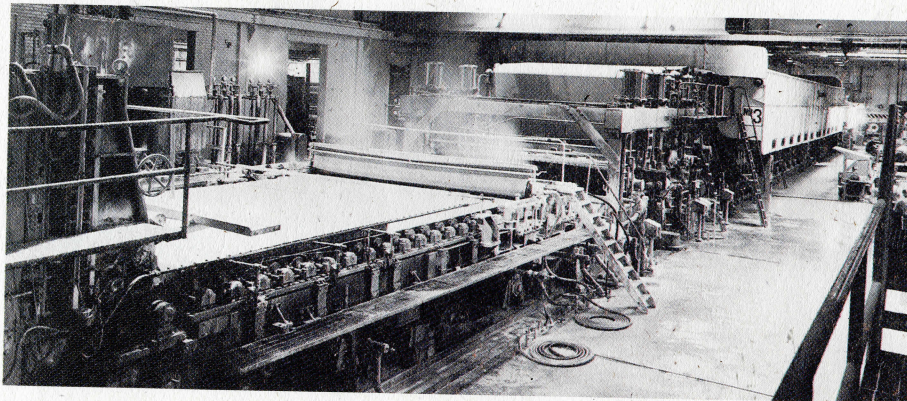
Automatic stock preparation system serves five paper machines and #8 Groundwood paper machine.



In 1974, excavation started for two primary effluent treatment clarifiers for the Madawaska Mill. The clarifiers would effectively remove 90% of all solids from more than 20 million gallons of paper mill effluent each day.



1977

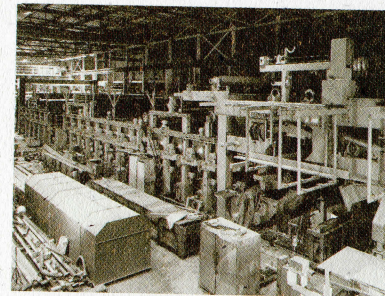


Bond #3 PM Fourdrinier and press section.

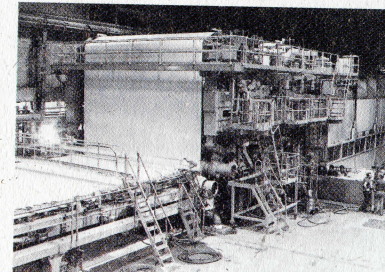


fraser

1979



#8 PM construction, 1970.



#7 PM new press section, 1979.



Pulp stock and white water pipelines installed on the International Bridge.

BIG THINGS IN THE SEVENTIES

While the rest of North America was tuning into *All In the Family*, and Archie Bunker was being dragged kicking and screaming into the seventies, big ideas were circulating in Madawaska. And when Madawaska thought big, things like the giant Paper Machine Number 8 happened. Started in 1970, PM#8 is 306" wide and operates at 2800 feet per minute producing lightweight groundwood specialty papers for directories and catalogs.

But PM#8 wasn't the only big thing in the seventies. In 1974, excavation started for two primary effluent treatment clarifiers for the Madawaska Mill. The clarifiers would effectively remove 90% of all solids from more than 20 million gallons of paper mill effluent each day.

Then there was the largest modernization and expansion program in Fraser history—a long list of projects that included installation of a new off-machine lightweight groundwood coater; the addition of a billblade coater on PM#3 in the Bond Mill; speed-ups for PM #5 and PM#6 and a major rebuild of PM#7. The list also included the installation of a high-pressure steam pipeline across the St. John River to the mill. These projects weren't completed until 1983.

Still, the biggest event of the 1980s was the acquisition of Fraser on April 9, 1974 by Northwood Mills Ltd., a wholly-owned subsidiary of Noranda Mines, Ltd.. Noranda Mines was one of Canada's largest corporations. The acquisition of Fraser, a company with its natural resources of more than 1.8 million acres of woodlands and its line of finished products, such as lumber and paper, broadened Noranda's position as a natural resource company. For Fraser, it deepened the pockets and provided much needed capital to ensure the company would remain competitive.

Throughout the '70s, the employees of the Madawaska Mill discussed the need for an employee assistance program. The social ills of the time were also to be found in the mill, yet there were few resources for substance abuse, marital and psychological problems. Finally, early in 1980 a joint committee of management and union people set to work to fulfill this need. In June, the Fraser employee assistance program became known as FACE with the Joint Committee serving as a Board of Directors and the Aroostook Mental Health Center providing counseling and support.

THE SOLID EIGHTIES

In 1983, production from the Madawaska Mill totaled 445,000 tons annually of fine sulphite papers, uncoated groundwood and coated groundwood grades.

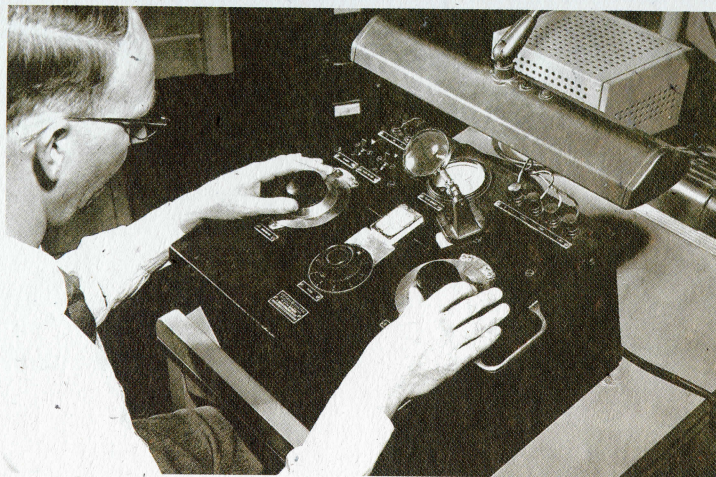
Fine papers included forms bond in white and colors; carbonless base papers and the proprietary CF (Coated Front) grade. The fine product line also included C2S (Coated 2-sides) book papers for publishers and a broad range of coated specialties, primarily for converting applications. Light basis weights were a Madawaska hallmark and Fraser was making a name for itself in lightweight opaque papers for dictionaries and Bibles. Converting papers filled out the rest of the order book with stick and stamp papers, thermal and chart papers and other specialties.

Uncoated groundwood papers were almost equally divided between directory papers and catalogs with a growing business in commercial printing. The ability to make light basis weights made this a highly profitable product line and enabled it to compete with companies using converted newsprint machines to make these grades.

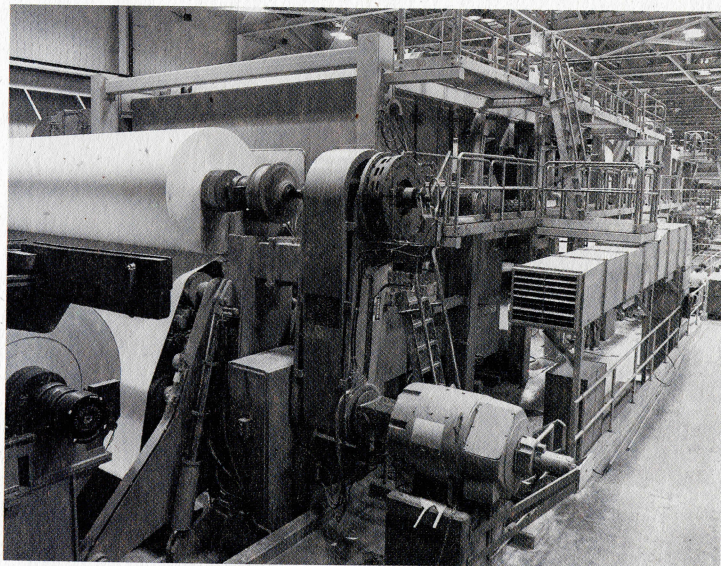
The Fraser strategy of specializing in lightweight papers became well-established in the 1980s. It was a turbulent time in paper markets and the ability to be flexible was a competitive advantage. By equipping PM#7 to "swing" between lightweight groundwood and uncoated free sheet, Fraser achieved this flexibility and further demonstrated its determination to not only compete but win in the marketplace.

During the late 1980s and 90s as the paper industry became more and more competitive, many companies began to understand the importance of effective union-management collaboration. Fraser already had an edge over the competition. With the exception of a strike in 1971 and a somewhat concessionary agreement in 1987, historically there had been a willingness by both parties to work together on mutual problems and interests. During the first years of operation, the Mutual Interest Board was created to deal with improving mill conditions and work life in general.

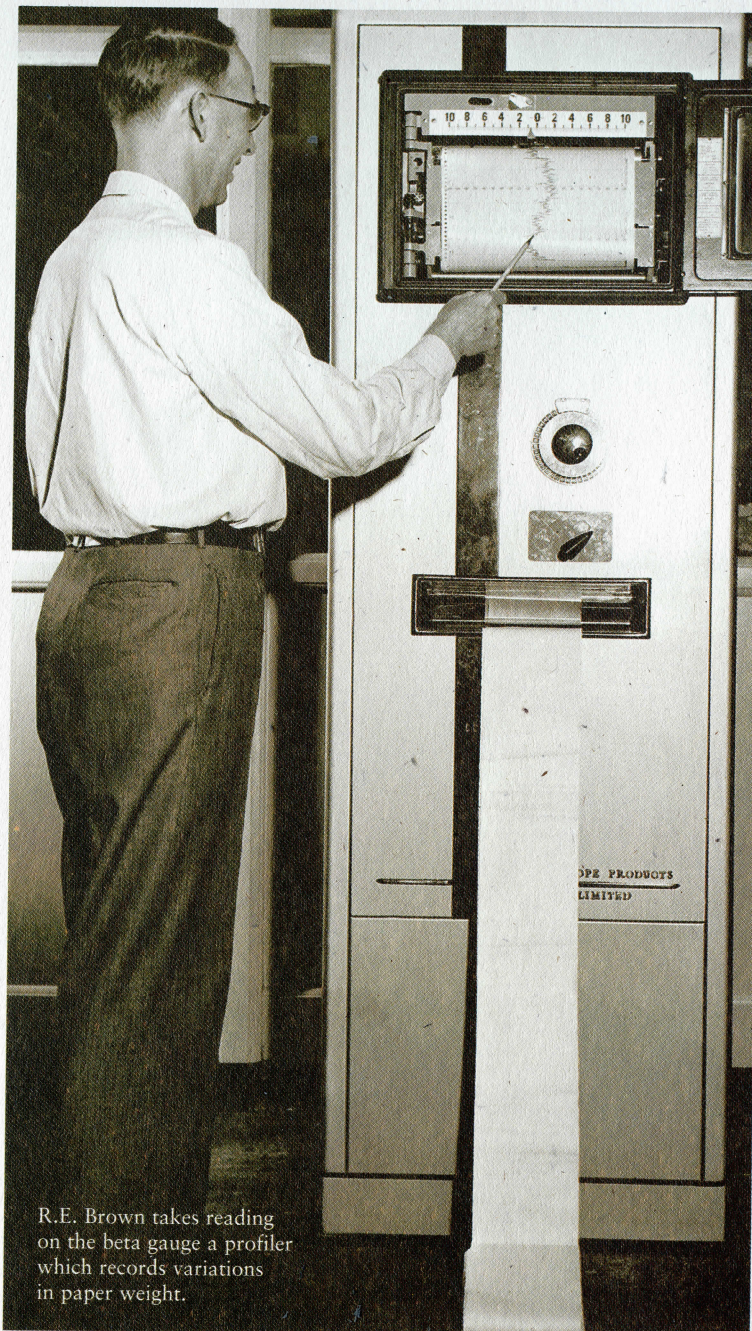
This committee remains active today and is a testament to the commitment by both the unions and management to work cooperatively on matters of mutual concern. From this beginning we have witnessed the development of a joint union-management safety committee, a joint union-management employee assistance committee, an environmental committee, a committee dedicated to controlling health care costs and a gain sharing committee.



Reflection meter measures the amount of light reflected from the paper, indicating its quality of whiteness.



C-3 Greenwood Paper Coater.

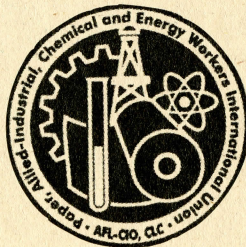
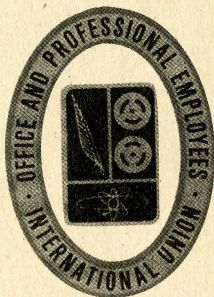


R.E. Brown takes reading on the beta gauge a profiler which records variations in paper weight.

The cooperative atmosphere remains strong today mostly because both parties understand that cooperation is not a denial of the identity of either party – Management remains responsible to the stockholders in the private sector and to communities in the public sector while the union is obligated to represent workers' interest. The collective bargaining relationship continues to be the framework for conducting labor relations in the Madawaska Mill.

Unions became an important part of the history of the Madawaska operation as early as 1938. Over the years that followed, there were several different union designations. Records indicate that the first Union was called "The International Brotherhood of Papermakers". At a later time in history there was the United Papermakers and Paperworkers, Madawaska Local 262 representing the Catalog Mill employees. There was also the United Papermakers and Paperworkers Border Local 247 representing Bond Mill employees, and there was The International Brotherhood Pulp, Sulphite and Paper Mill Workers Local 365 representing maintenance employees. Later on all of these titles were folded in under what was to be known as the United Paperworkers' International Union servicing Locals 291 (Catalog Mill), 365 (Maintenance) and 1247 (Bond Mill). Today, these locals are under the umbrella of the Paper, Allied-Industrial, Chemical and Energy Workers International Union.

In the years that followed, Technical and Office Department employees were organized and today they are represented by The Office & Professional Employees International Union, Local 232.



THE SPECIALIZED NINETIES

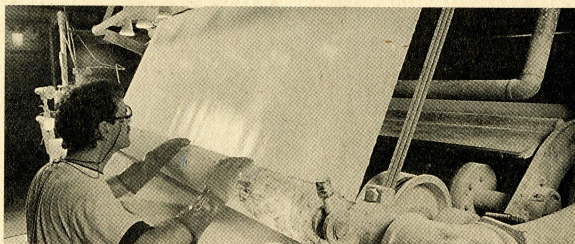
While nothing has been more constant for Fraser Papers than change, for the Madawaska mill the 1990s brought changes that have literally reinvented the mill and transformed the culture. Where paper machines were once operated by eye, ear, nose and expert hand, the paper machines of the nineties have become fine tuned production instruments with arrays of sensors and banks of actuated controls, all under the second-by-second control of computers.

Still, the know-how and can-do of experienced papermakers can be impressive and essential. Take the revamp of PM #3. At a machine efficiency of 67%, it needed a new lease on life. When a machine improvement task force met in 1990 to evaluate what was needed to revitalize the 1928-vintage machine, it wasn't difficult to come up with a list of 54 items costing \$2 million. The challenge on the table was to do it for less than \$500,000.

So the improvements began using the ingenuity the Madawaska workforce is known for. By the end of the year, 15 items on the checklist were installed at a cost of just \$18,000 and machine efficiency had ramped up to 72%. During the next year, the rest of the items were tackled and a new computer installed at a cost of less than half the original estimate.

In 1991, Madawaska became the first fully integrated mill in North America to produce a recycled lightweight groundwood paper. This was a business supplied by two paper machines, PM#6 for the coated groundwood magazine and catalog grades and PM#8 for the uncoated groundwood directory and catalog grades. Focusing individual machines on specific paper markets made sense and money.

It became known as the marketing-by-machine concept. The idea called for a critical assessment of the strengths of each paper machine and the research and development to match those capabilities with a market.





FraserPapers

1997



FraserPapers
Nexfor

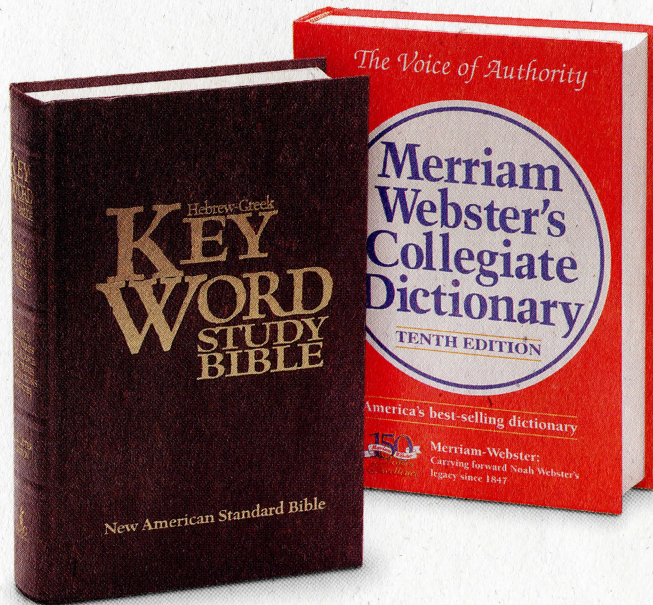
1999



Madawaska Public Library
393 Main Street
Madawaska, ME 04756
(207) 766-5800

**FOR MADAWASKA, THE FUTURE IS LIGHT,
OPAQUE AND SPECIALIZED!**

Going forward into the 21st century, the Madawaska mill is making the core products on which the future of Fraser Papers is based: LWO, Specialty/Converting and Groundwood publishing papers. The largest of Fraser's paper mills, Madawaska is also the company's heart and soul. So it will be the unique capabilities of the Madawaska Mill that define the future. Few competitors can match our light and ultralight opaques or our ability to make base papers for specialized applications. Nor can our competitors match Madawaska for flexibility and potential. While the future is never ours to completely foresee, the future success of Fraser Papers is in the hands of its Madawaska papermakers.



PM #4 now makes premium lightweight opaque grades used for Bibles.



PM #5 makes supercalendered release liner, the peel-away portion of labels destined for high-speed packaging of consumer products like Windex.

For example, a major foray into the book papers business. The strategy was to parlay Fraser experience and expertise in lightweight opaques into a core business. Publishing houses and printers have extremely high service requirements. While the business is almost totally served through paper merchants, the merchants need a mill that responds to customer needs. Over the years, Fraser has become known for its close and responsive service so word got-around among merchants that Fraser not only made a good book paper, they provided the type of mill-based service that enhanced merchants' position without directly threatening their business. Paper machines 1, 2, and 4 are now devoted to supplying lightweight opaque grades (LWO) to the publishing market.

Today, Fraser is the largest supplier of LWO in North America. Madawaska makes publishing papers that fulfill the needs of extremely specialized segments of the book papers market, such as Bible, financial, and pharmaceutical grades.

When the decision was made to develop technical specialty grades for the converting market, Fraser identified capabilities on paper machines 3, 5 and 7. Applying the marketing-by-machine strategy, Fraser entered the specialty papers market with capital investment, intensive customer support, detailed market research and a challenge to the Madawaska papermakers to think and perform like technical specialists.

In 1992, Fraser began investing what would total more than \$60 million on five major projects. By 1997, the projects were complete and included:

- A metering size press and inline coater for PM#7 at \$11 million.*
- Improvements for the C-2 winder and coater on PM#5 at \$5 million.*
- An automated roll-wrapping system with plant modifications to improve flow and handling at \$6 million.*
- A \$17 million project to produce high-finish release and packaging papers on PM#3 that included hot soft-nip calender, a new winder and other modifications.*
- A \$25 million rebuild to convert PM#5 from lightweight coated papers to SC release.*

When the marketplace learned of Fraser's plans for SC Release, they said it couldn't be done. Today, the SC Release grades made in Madawaska are in strong demand due to quality, precision and consistency. Don't ever tell a Madawaska papermaker it cannot be done!

Today, Fraser makes the preferred packaging grade for Ralston Purina premium pet foods. Known as Bladepak, the coated one-side paper provides a superior printing surface and grease-resistance with the strength the food packager demands.

Yes, Fraser has made the investments needed to keep the Madawaska Mill competitive, but it hasn't yet discovered a force that can slow technological change. Rapidly changing market demands still require an in-depth knowledge of the market, a constant effort at product development and the ingenuity of highly skilled papermakers.

Take Thermal Papers, for example. In 1992, the Madawaska Mill worked closely with a customer to develop a high-quality thermal base paper for facsimile machines. Fraser invested in a metering size press for PM#7 and developed an innovative method of high-speed on-machine coating. But look what happened to thermal fax machines in the latter part of the decade. They disappeared and were quickly displaced by plain-paper fax machines. Fortunately, Fraser Product Development was ready. Working with our customers, the replacement for fax paper was ready: Thermal point-of-sale papers, the ubiquitous receipts printed using thermal methods at ATM, gas pumps and cash registers everywhere. Today, it is a 25,000 tons-per-year business.

During the 1990s, change was a daily experience at the Fraser Madawaska Operations. Some of it was equipment—more than \$60 million worth. Some of it was bricks and mortar—the new Product Development Center and customer reception facility, for example. And some of it was cultural, like the first woman Backtender. The top person on a paper machine is the tender. She is the most knowledgeable and the person with the most responsibility. The Backtender is responsible for the weight of the paper, the drying process and the winding of the paper on the reel. Since then, women have made their way into all areas of the mill and proven to be as qualified and as professional as the men.

The 1990s became the "safety" decade as well. Safety awareness became the mill mantra with "top of mind, all the time" the slogan. With concentrated effort safety awareness worked. From serious accident frequency rates of 18, the mill worked the incidents down to 7.59 in 1995; to 5.09 in 1996 and, significantly contributed to Fraser Papers near world-class level of 2.89 in 1999. Safety has become a part of the Madawaska Mill culture, not only on the job, but at home as well. Not surprisingly, there is a high correlation between the ability to produce technically excellent quality and a successful safety record.



PM #6 produces this 41 lbs offset.



PM #3 makes specialty release products like Fraser Bladepak and release liner for pressure sensitive labels.



Bladepak provides a superior printing surface and grease resistance.



PM #6 makes lightweight coated groundwood publication paper for magazines such as Macworld and many direct mail catalogs.

