Gurdon Caswell builds his first paper mill on the south bank of the Black River opposite Beebee's Island, above Cowan's Grist Mill The Pioneer Mill, as it was called probably employed four or five men and as many women, and was



Lewis and Clarke Expedition of the Louisiana Purchase





Thomas Jefferson completes his second term as President of the United States.

A defeated Napoleon retreats from

The Pioneer Mill and a second mill built by Caswell are sold to Seth Otis of Watertown and John C. Holbrook, presumably to settle

### 1820

Missouri Compromise partitions "free" and "slave" states.

President James Monroe issues his famous "Monroe Doctrin

George W. Knowlton, a young bookkeeper, and Clarke Rice, a young printer, form a partnership to purchase the Pioneer Mill for \$7,000. The business becomes known as Knowlton & Rice, a book printer and bindery. The owners collect rags for paper and deliver the finished books to area schools by horse and wagon as far north as Potsdam, NY.





Knowlton and Rice purchase machinery for making a continuous sheet of paper, known then as the Fourdrinier machine (36" cylinder). It was the first of its kind in Jefferson County. The paper capacity grows to 700



pounds per day.

Samuel F.B. Morse invents the telegraph.

1839

The name Knowlton & Rice becomes synonymous with printing. Webster's spelling books, Cobb's Series of Spellers and Readers. Pierce's Grammar, Ruger's Arithmetic and the Knowlton and Rice Common Almanac are all published here.

### 1837 Charles Dickens authors "Oliver Twist."

Daguerre invents first form of photography.



Fire destroys the Knowlton & Rice mill, a year before the great fire of Watertown. Losses are extensive, \$16,000 for the Knowlton Mill.



### 1849

The mill is rebuilt and the company is renamed Knowlton Rice & Company when another partner is added – Clarke's son, John H. Rice, who pays \$8,333.33 to become a one-third partner.



1854

Charles Brown and Edward Chamberlain purchase the Mill for \$9,000. They also assume a \$13,000 10-year mortgage at 7% payable annually. The mill changes its name to Brown & Chamberlain.

Republican Party is formed for the abolition of slavery.

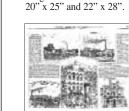
Dred Scott decision returns fugitive slave to his "owners".

The Great Fire of Watertown on May 13th.

### 1862

Brown & Chamberlain default on the mortgage, and the mill is returned to the Knowlton family Brothers George W., Jr. and John C. Knowlton, sons of the original owner, take over the business and rename it "Knowlton Brothers"





on Knowlton Brother

### Robert E. Lee surrenders at Appomattox and President Lincoln is assassinated.



The Watertown flood destroys much of the mill's equipment and leads to a plant modernization. including the installation of a Fourdrinier (60" trim) paper machine with 6 drvers.

> Union Pacific Railroad links with Central Pacific Railroad.

A new waterwheel and grinders are installed to produce wood pulp. Paper is now being made with equal portions of rags and wood pulp. The mill begins producing a

cover for photographic tintypes.

### 1874

Knowlton begins making "standard cover" colored papers, because the Black River water had become too dirty and dark for making fine white papers. These colored papers come in 20 colors and several weights and at least two sizes,



Late 1800's newspaper article

### George Armstrong Custer defeated at Little Big Horn.

Alexander Graham Bell patents the telephone.



### 1881

Knowlton begins advertising its cover papers as Kamargo Mills Products. Kamargo is an Oneida Indian name for Black River.

### 1885

An automatic sprinkler system is installed and New England Mutual insures the company against fire, the first such company to be underwritten for this type of fire insurance.

Louis Pasteur administers first

rabies vaccination. 1888

George W. Knowlton Jr. becomes president of the new Ontario Paper Co., at Glen Park, N.Y.

George Eastman's first camera for consumers is developed.

### 1889

Knowlton is the first manufacturing plant in the city to produce its own electricity. Up to that time, light was provided by kerosene. One of the mill jobs was to make sure the lamps were properly cleaned, trimmed and made ready for nigh











The corporation known as Knowlton Brothers, Inc. is formed and the partnership sold to the corporation for \$100,000. George W. Knowlton Jr. becomes the first corporation president, a position he holds for 39 years.



1895 H.G. Wells writes "The Time Machine"

George W. Knowlton Jr. is named the first president of St. Regis Paper Company.

### 1901 William McKinley assassinated by anarchist at World's Fair in



## Albert Einstein proposes his Special Theory of Relativity.





The company's first duplex machine is installed for the making of a red and black duplex paper used to protect film rolls produced by the young Eastman Kodak Company. Over the next two decades. Knowlton will branch out into different lines of colored papers, including the first mimeograph paper, laminated bakelite products, dental x-ray films, and other photographic packaging



### 1908

Some of the first Kraft paper manufactured in the U.S. is made by Knowlton Brothers' Fourdrinier. Previously it was manufactured from Kraft pulp imported from Sweden by Charles F. Hubbs & Co. New York City.





First Annual Employee Dinner is celebrated right at the paper machine. Hotels provide more comfortable environment today

Knowlton Brothers, Inc., is awarded a contract to furnish the government with several grades of cover paper.



U.S. declares war on Germany.

### 1918

Knowlton Brothers purchases the Harmon Machine Company from A.H. LaFebvre. Mr. LaFebvre reserves the right to use the plant for two years to enable him to get a new building for the business.

Russian Revolution begins.



### 1920

The Great War is over, but Knowlton Brothers stands firm with other U.S. paper makers in continuing its boycott of cheaper German dyes, thus enabling the infant dye business in the U.S to grow.

Knowlton purchases adjoining property from New York Airbrake. A storehouse for rags, sulphite and other raw materials is built on the site and new boilers are installed A new finishing room also is added to the mill, so paper does not have to be carted across the street.

Women's Right to Vote passes.

Knowlton Brothers, Inc. introduces group health insurance to its employees, becoming one of the first paper companies in the country to offer this benefit.



### 1929

Theodore E. Knowlton receives his first patent, #1731467 for "Methods and Apparatus for Preventing Offset in Printing." Over the next decade he'll receive four more: #1873207 and #1922372 for "Methods and Apparatus for Preventing Offset in Printing;" #2030304 for "Printing; and #2139164 for "Methods and Apparatus for Preventing Slipping in Printing."



George W. Knowlton Jr. dies shortly after turning over management of the company to his eldest son, G. Seymour



Theodore Knowlton, Seymour's younger brother, joins the company and seeks new areas where the existing machinery and equipment could operate profitably. Thi initiative launches a significant shift into industrial technical products such as latex saturated low density products.



A Credit Union is established at Knowlton Brothers, Inc.

### 1934

After a year of experimentation. Knowlton Brothers introduces a new absorbent paper that removes excess kitchen grease from foods to make them crisp and digestible It's made available to households in the Watertown area and sold at



### 1936

Low-density papers are adapted for use as oil filter media for internal combustion engines Among many technological innovations. Knowlton develops a carbon-filled sheet which conducts electricity and can be coated for automatic reproduction of telegraph messages.

### 1937



Theodore, a graduate of Rensselaer Polytechnic Institute, becomes the

company's thin president. Theodore Ely Knowlton, President





Germany's invasion of Poland

With the onset of World War II.

density papers makes possible the

production of filters for gas masks

Knowlton Brothers enters its first

agreement with the Circle K Union

now known as the International

Brotherhood of Papermakers).

Knowlton Brothers is cited by

the outstanding organizations

Service" in World War II.

Normandy

the War Department as "one of

supplying the Chemical Warfare

invasion opens the "Great Crusade."

Knowlton's expertise in low-





Knowlton Brothers begins routine monitoring of process water for atomic radiation - pioneering this aspect of quality control, particularly as applied to photographic papers.

Korean school supplies



# TECHNOLOGIES Celebrating 200 years of consistent business, consistent change and forward thinking.



1947 Marshall Plan quashes Communist expansion.

### 1948

Theodore Knowlton turns over the reins of the presidency to his son, David C. Knowlton: the family's fourth generation to head the company. David C. Knowlton, President 1948



Knowlton Brothers becomes the first plant to make a commercial run of all-bagasse bleached paper. The pulp is from the sugar bagasse pulp mill of Valentine Pulp and Paper Co., Lockport, L.A.



Under the management of President David C. Knowlton. a new pilot-size paper machine is designed for research and development. The machine is a Fourdrinier type 42 that can produce explorative paper from 2" - 18" wide. Considerable experimental work is directed toward the use of unusual natural fibers as well as synthetic fibers. Papers are made on the machine using glass, nylon, rayon, Dynel and ceramic fibers in order to evaluate their potential for production. The company invests extensively in control equipment to produce products within the very close tolerances necessary to meet customer requirements.

**1955** An auto in every drivew America tur into TV ar radio por verv drivewav. radio goes hip-hop.

### 1957

Sputnik launches the space age.

### 1959

Knowlton installs a flocculating tank outside its Black River factory to eliminate radioactive particles from its water supply This tank is used for the photographic backing paper made for Polaroid, Ansco and Kodak. An air filtering system also is installed, enabling rapid changeover from one to another color or type of paper without contamination, or waste, caused by mixing different kinds of pulp.

A new research program is underway to find uses for a new stretchable paper in the specialty paper field. The new extensible paper is used mainly for paper bags to hold heavy powders such as lime, cement and fertilizers, and stretches rather than breaks when dropped. When most paper mills are closing in northern New York. Knowlton Brothers is concentrating on specialty papers that are too complicated for big machines manufacture. The machine's lexibility allows Knowlton to change products and markets as technology evolves.



President T John F. Kennedy assassinated in Dallas, TX.

1965 Franklin D. Cean joins Knowlton.

1967 Knowlton Brothers purchases Southern Specialty Paper Co. located in Chattanooga, TN This company had previously entered the field of filter paper manufacturing and was an idea complement to the Watertown



The merger of Knowlton Brothers Inc. of Watertown and Eaton-Dikeman Company, Mount Holly Springs, PA is announced. David C. Knowlton remains as President and Eaton-Dikeman becomes a subsidiary of Knowlton Brothers The newly acquired firm concentrates on the manufacture of filter papers for the food, chemical, beverage and pharmaceutical industries.



### 1972

After a thorough survey of potential and existing markets Knowlton Brothers purchases land in Madisonville, KY. Construction begins on a new mill at the site.



### 1973

The company installs a new closed system waste treatment plant. The closed system uses wastewater which is clarified and reused in the papermaking process. Water from the Black River is added to compensate for evaporation and spillage. The new system enables the plant to use 500,000 gallons of water a day in production of special industrial papers and function for an entire week on the recycled water. The dewatered sludge is collected and removed daily for deposit at the city landfill.

Knowlton Brothers announces the opening of its new plant in Madisonville, KY. This new mill includes a 130 inch Fourdrinier. the largest paper machine in the world devoted exclusively to the production of impregnated filter paper.

Richard Nixon resigns amid Watergate scandal.

Severe economic conditions affect the paper industry. Local 1450 of he United Papers International Union's contract expires and a strike at the Watertown plant brings peaceful demonstrators and a federal mediator to settle the 18-day walkout. The agreement includes an eight percent wage adjustment, job adjustments and clarification of seniority issues.

Rise of feminism and ecology.



Knowlton Brothers purchases Southern Cellulose Products, Inc. located in Chattanooga, TN, next to its Southern Specialty Division The new division is a leading manufacturer of cotton linter pulp for the paper



### Iranian Revolution and hostagetaking at the U.S Embassy in Tehrar





CD's VCR become common plac

### 1983

Three entities are merged into Knowlton Brothers which are later renamed Filtration Sciences.

1991

Franklin D. Cean purchases the former Knowlton Brothers, Inc. Watertown, NY mill from Filtration Sciences Corporation The company's name is changed to Knowlton Specialty Papers, Inc. and the Watertown mill is operated

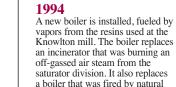


1988 Soviets lose in Afghanistan and the Red Bloc unravels.



9/11 terror attacks alert Americans as U.S. invades Afghanistan.

1980



1997

1998

NASA lands the

Pathfinder space

craft on Mars.

# composite materials.

as a completely independent entity.







2001





Internet expands with the World

gas and oil, which generated about half as much steam as the new boiler. Knowlton applies to economic development agencies for \$3.825 million in financing to add a second paper machine. allowing the company to expand its manufacturing capability from single-layered to multi-layered



Jefferson County Industrial Development Agency approves a \$300,000 loan for a water-based saturator, allowing Knowlton to use an environmentally friendly process to expand into new markets. The mill also replaces its single-walled chemical storage tanks with new double-walled tanks with spill prevention monitoring equipment. Knowlton achieves registration to

OS-9000:1998 quality standard.

Disaster strikes Knowlton when a fire at its Watertown mill kills one worker and injures several more. The mechanical failure disrupts operations at the saturator plant for five months. The manage ment team begins repairs to bring operations back on line. Hoeweve insurers dispute the approximately \$7.5 million dollar claim.

The company doesn't lose a single customer during this time: A testimony to their relationships and Knowlton's workers.

The company hires a turnaround firm to help stabilize the core business. Unpaid contractors reject Knowlton's proposed solutions and try to force the company into involuntary Chapter 7. Knowlton Specialty Papers successfully converts this filing to a voluntary Chapter 11 Reorganization. This allows management to take the steps necessary to file an acceptable recovery plan. The plan as adopted provides for 100% payout to all creditors.



China emerges as an economic giant.

To better serv customer nee Knowlton rec registration ISO:9001:20 and ISO/TS 16949:2002

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0	Trans.

**2007** Frank Cean celebrates 20 years as owner of Carlow and Knowlton. John McMahon is hired as VP of Sales & Marketing A new marketing identity i launched, along with a new we site and brochure



For the first time in American history, a woman and an Africa American vie for their party' nomination to run for president of the United States.

As we go to press, a Knowlton management group led by Frederick "Rick" Rudmann, James "Jamie Ganter and James "Jamie" Lee are negotiating a management buyout of Knowlton Specialty Papers, Inc.

Knowlton celebrates its 200-year anniversary as the longest continuously-operated paper mill in the United States. Frank Cean and the 100 dedicated employees of the "Pioneer" mill pay tribute to the determined spirit of those who persevered and prospered through the first 200 years.



We are proud of our upstate New York heritage. We dedicate ourselves to the next 200 years as the "Pioneer" technology manufacture in emerging markets and products.