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## **American Brass : 100 years of progress. Sept. 21, 1986**

Schumacher, Michael

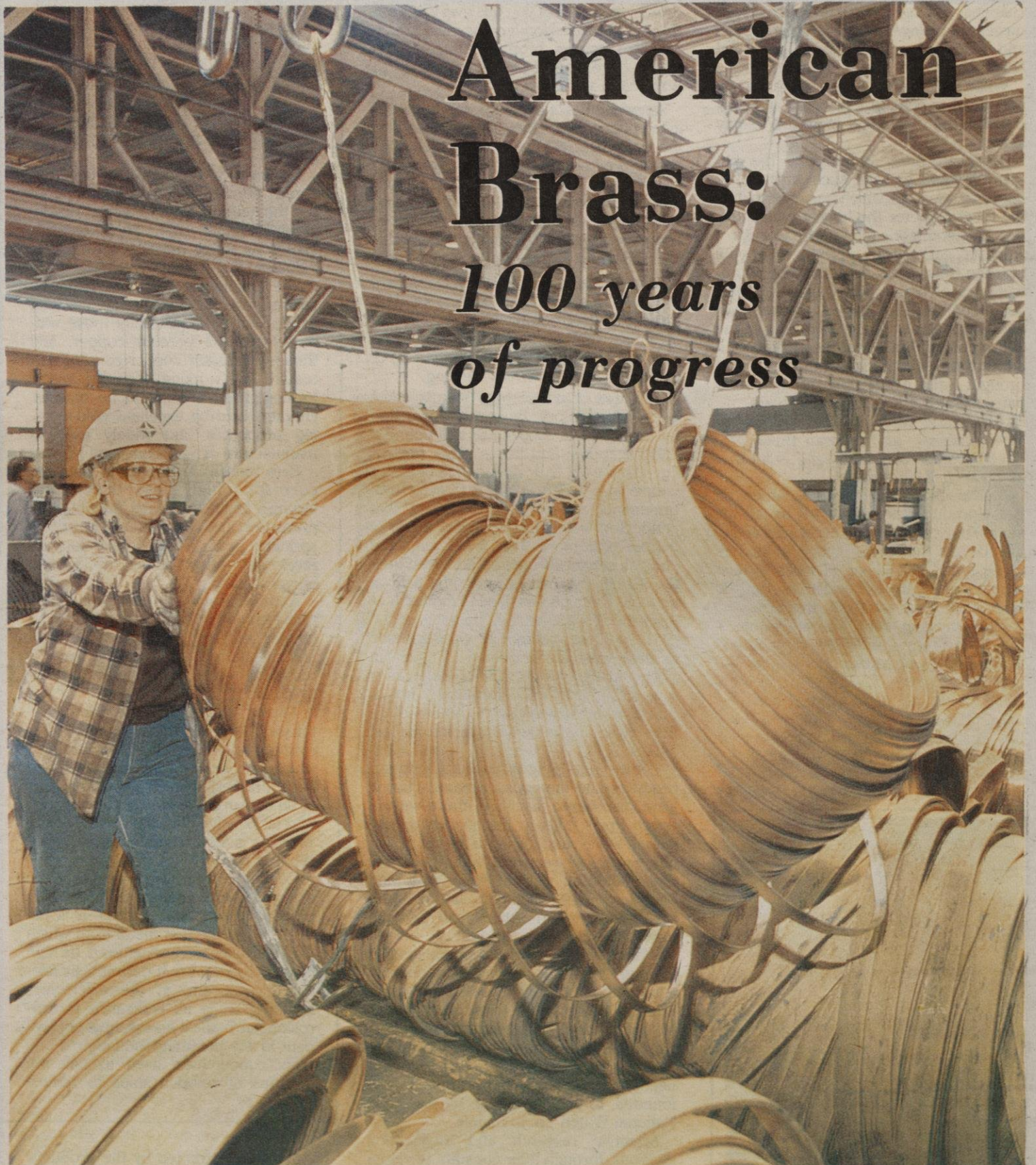
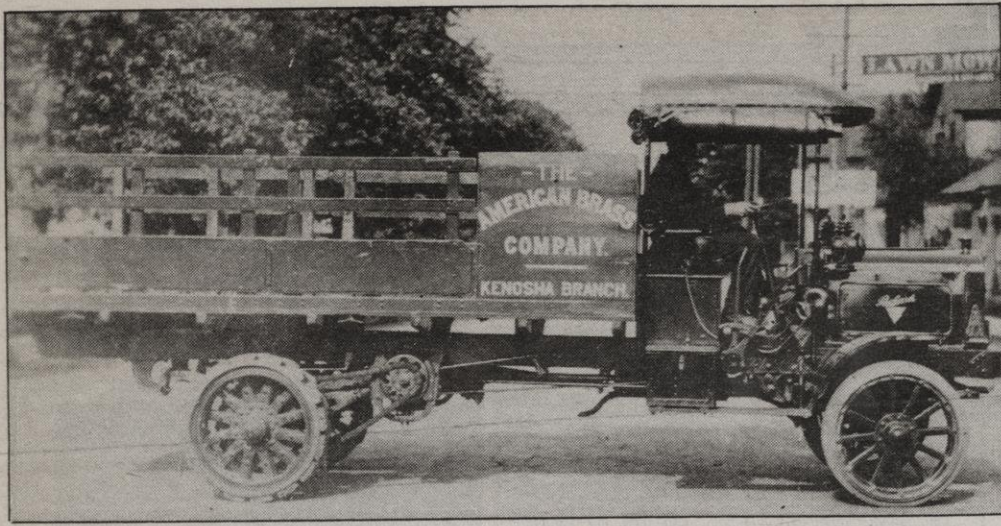
[Kenosha, Wisconsin]: Kenosha News, Sept. 21, 1986

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# American Brass: *100 years of progress*

*Yesterday, today*

With a century of progress in Kenosha, American Brass spans generations. This cover offers a glimpse of the past and present. At top left is a 1912 photo of an American Brass truck. Top right shows the exterior of the plant. At left, the 1909 championship baseball team,

the finishing department in 1909 and a 1924 photo inside the plant, bottom left. Above, the rich color of finished copper and its alloys gleam as Carol Hannaman maneuvers a crane in the plant where metal is drawn to customers' specifications today.

A special advertising section of the **KENOSHA NEWS** Sept. 21, 1986



## Marking the first 100 years

One hundred years ago, a traveling salesman's idea became Chicago Brass Co., the ancestor of today's American Brass. A combination of Edward D. Tuttle's vision, Elgin National Watch Co. President Thomas Avery's funding and farmland donated by Kenosha businessmen led to the establishment of the first brass mill west of Detroit.

The company, whose record reflects the nation's growth to pre-eminence as an industrial power, has undergone dramatic changes through its subsequent four owners, enjoying both spectacular growth and overcoming economic and personal hardship.

While the market for its products experienced periods of expansion and contraction, the local plant managed to stay ahead.

American Brass in Kenosha has become integral to Lake Michigan's manufacturing crescent which has emerged as the focal point for the largest concentration of metal fabrication in the world.

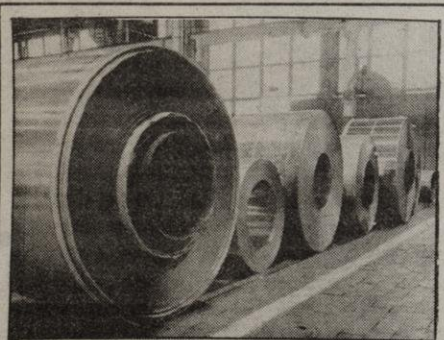
In its early years, products of the Chicago Brass plant were used by manufacturers of brass beds, gasoline lamps, soda fountains, nameplates, cracker cans and washboards. At the beginning of the 20th century, brass was needed for the expanding electrical industry, and brought with it the first of many expansions at the Kenosha brass plant.

Two world wars brought a boom to local business, as American Brass produced ammunition shells and employed as many as 3,000 workers.

The kinds of materials that American Brass produces are significant to our life style. They can be found in pennies and in the rockets that probe space, in kitchen utensils and in millions of miles of telephone wires, in car radiators and in coaxial cable for television transmission.

Ever-changing with the marketplace, American Brass — now owned by Buffalo Brass, Inc. — embarks on its second 100 years of progress.

By developing new methods and new uses for brass products, American Brass has weathered well, charting a course as an industry leader with a challenging future in Kenosha.



## Credit to writer and photographer

The text for this KENOSHA NEWS supplement was prepared by Michael Schumacher, a local freelance writer, and the photographs were taken by Ray Houte. Special thanks to William Girman, Frank Klenitz and Darrell Mecozzi for their assistance in developing this supplement.

# Brass products all around us

When you tour a plant like the American Brass facility in Kenosha, you get the feeling that you can't see the forest for the trees.

You see a multitude of machines. A mass of metal in strips, tubes, sheets and shavings, gathered on pallets and in tubs. Hundreds of people operating the machines, moving the product, overseeing the operations.

Actually, American Brass products are all around you, almost everywhere you look — in products you use every day but take for granted. Non-ferrous metals such as brass, copper, bronze, aluminum and nickel have contributed significantly to America at work and play.

American Brass products can be found in telephone wire, tubing for car radiators, the equipment in your kitchen, nickel for coinage, co-axial cables for television transmission, electric motors, air conditioners, plumbing, parts for military hardware (especially submarines), computer components and in the rockets that probe space. The list is goes on.

Among the company's key customers are AMP, Inc., General Motors, General Electric, Electromotive, AT&T, Westinghouse, and Central Steel and Wire. Kenosha buyers include the Frost Co., G. Leblanc Corp. and White Welding.

The use of non-ferrous metals dates back to prehistoric times when mankind learned to melt copper ore and pound it into weapons and tools. The ancient Egyptians used their abundance of native copper in a variety of ways, ranging from ornaments and jewelry to tubing that conducted water. In the 1950s, a line of copper pipe more than 5,000 years old and still serviceable, was discovered near the Great Pyramid of the Pharaoh at Cheops. The pipe was used to move water from the Nile to the royal bathing pool.

The process of alloying copper and zinc to make brass was perfected in England in 1781, and manufacturing of brass began in America in 1802 in Waterbury, Conn. At that time, brass was used to manufacture three main products: buttons, kettles and clocks.

Competition grew as new uses for brass products and methods of manufacturing were discovered. By 1870, there were a dozen brass mills in Connecticut's Naugatuck Valley, and the industry was beginning to expand westward, with new plants constructed in central New York and Michigan. The lighting fixture and kerosene lamp industries had become major buyers of brass products.

When the Chicago Brass Co. opened its plant in Kenosha in 1886, the city claimed a population of 6,500, three-masted supply ships could be seen anchored in the harbor, and the automotive and electronic industries had yet to supply the new company with the volume sales it needed to prosper. The company was founded to supply metal to the Elgin National Watch Co. in Illinois.

Scientific research and engineering divisions, through their constant development and testing of thousands of copper alloys, expanded American Brass' market by creating useful products for a growing range of customers. The plumbing industry found the corrosion-resistance quality of brass products preferable, while the heating and electronics in-

## Brush up on your metals

### What is brass?

Brass is an alloy of copper and zinc, of historical and enduring importance because of its hardness and workability. The earliest brass, dating to Neolithic times, was probably made by the accidental mixing of zinc ores with copper ores. In ancient documents, such as the Bible, the term brass is often used to denote bronze, the alloy of copper with tin. Brass was widely used in the Middle Ages and later for cannon, and in modern times has found increasing industrial applications.

Malleability of brass depends on copper content; below 55 percent copper the material is no longer workable, either hot or cold. Such brasses, known as white brasses, are of little industrial importance.

The malleable brasses may be further subdivided into those that can be worked cold, generally those with more than 62 percent copper, and those with lesser copper content that require hot working. Included in the former group are the alpha brasses, characterized by excellent cold-working properties and widely used in manufacture of pins, bolts, and screws.

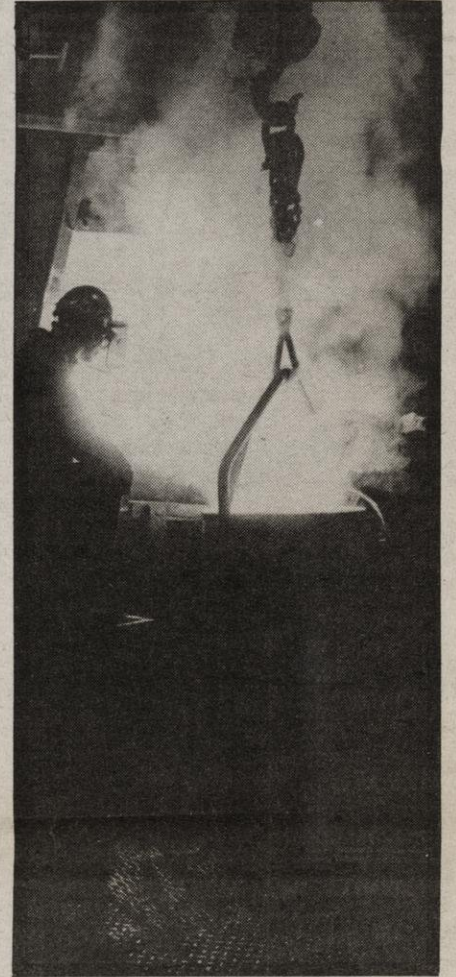
Beta brasses are richer in zinc and correspondingly less ductile but stronger and thus are suitable for manufacture of faucet handles, sprinkler heads, window and door fittings, and other details of building construction.

A third group of brasses includes those with other elements added to the copper and zinc to improve physical and mechanical properties, corrosion resistance, or machinability, or to modify color.

Among these are the aluminum brasses, which exhibit superior corrosion resistance; the lead brasses, which are more easily machined; the naval brasses, in which a small amount of tin improves resistance to seawater; and nickel silver, in which nickel added to brass gives a white, or silver, color.

### What is copper?

Copper is a reddish-brown metallic element which is second only to iron in modern-day metallic usages. It is believed to be the first metal from which useful articles were structured. Its high conductivity makes it desirable as telephone wire and in the electronics industry, while its resistance to corrosion has made it an essential component in the plumbing industry. At one time, copper was used to line the bottoms of wooden ships to reduce



rotting. Ancient usages include weaponry, decoration, and tool design.

### What is bronze?

Harder than any common alloy other than steel, bronze is made mainly of copper and tin. Modern bronze alloys also consist of mixtures of aluminum, magnesium, and phosphorous. The final products are used for fittings, bearings and machine parts. Ancient brass-like material discovered in Egypt and used in ornamental decorations, has now been determined to have been bronze.

### What is metallurgy?

Metallurgy is the science and technology of metals which involves extracting metals from ores, preparing the metals for use, and studying the relationship between the properties of the metals.

### What is an alloy?

An alloy is a metal made by mixing two or more metals. Copper alloys, especially bronze which includes tin, date back to around 3000 B.C. and were primarily used for weapons, tools and decorations.

dustries were attracted by the products' high conductivity. At one point, it was estimated that more than 50 pounds of brass and copper went into the production of each automobile.

Today, American Brass continues to be a productive facility, though changing priorities in the brass industry and com-

petition have altered the manufactured product. The facility presently tailors its production to meet the needs of more specialized markets, such as the computer and high-tech electronics industries, which demand much higher product tolerances than buyers of the past.

# Goodell: 'We can compete with anybody'

Joseph E. Goodell has been president and chief executive officer of the new American Brass Co. for less than a year, but in that time, he has made his presence felt.

Goodell has visited all American Brass facilities and talked with the plants' workers. While the specifics of his discussions vary, the core of his message never changes: quality breeds quantity.

"If we can bring the quality of our products to be the best in the United States, we'll be a winner," Goodell says. "The fundamental ingredients are there. We've got the equipment and I'm convinced that we have the people who are capable of and interested in doing it. Our challenge, as managers, is to put all that together and have it work right. If we get the quality where it belongs, the market share will come to us. We can compete with anybody."

The first year, Goodell said, has been successful. The company showed a profit and increased its market share. Surveys conducted by Brass officials indicate customer satisfaction.

"We've changed our approach to the market place," Goodell explains.

"We're operating with a smaller, more responsive organization and customers are applauding that. Our employees have



**Joseph E. Goodell**  
... Brass president

been cooperative and sensitive to our needs. They have welcomed us as investors, owners, and managers."

Goodell brings an impressive list of credentials to his job. The El Paso, Texas native has a mechanical engineering degree from Massachusetts Institute of Technology and a masters in business

administration from the Harvard Business School. He has managed capital equipment companies and once worked for a firm that designed and built nuclear power plants.

Between 1965 and 1979, Goodell was employed by Chase Brass. He started as an engineer and eventually became a company vice president. During that period, he was involved in every phase of Chase production, from tube and sheet production to rod and wire.

When a group of upstate New York investors and businessmen formed Buffalo Brass, Inc., Goodell was asked to join with the understanding that he would run American Brass if the company succeeded in acquiring it.

Goodell became well acquainted with the Kenosha plant long before it was purchased, and he liked what he saw.

"Kenosha had several things going for it," he says. "First, they had excellent labor-management relationships. The two had learned to work together. Second, we thought the capabilities in the strip area, where the investments had been made, would be quite important in our approach to the market place."

Goodell believes that the best opportunity for substantial growth can be found in supplying high-tech industries

with strips or sheets of metal developed in the plant's recently modernized sheet metal mill. Shortly before Buffalo Brass announced its purchase of the factory, ARCO had invested \$9 million in making the mill one of the most efficient of its kind, capable of producing metals with the difficult specifications and tight tolerances commanded by high-tech industries.

Goodell also expects growth in tube sales, but he sees the increase coming more from the Brass' restructured sales department than product development.

"We're finding markets for tube that we didn't know existed. We've discovered some on the West Coast. The tube business has been neglected over the years, and we propose to develop this market."

From Goodell's speeches and from speaking with him one surmises that the future looks promising for the Kenosha plant. The bottom-line figures for the company's first year have been encouraging.

"We got off to a good start," Goodell points out. "I think I can summarize it in two ways; the customers are happy and the bankers are happy."

That, in turn, will help keep the Kenosha plant's 715 employees happy and on the job.

## Brass roots

### Salesman's dream sparked new Kenosha industry

One hundred years ago, Chicago Brass was established in Wisconsin, chartered by the State of Illinois. It was the product of a traveling salesman's brainstorm.

Those were simpler times.

The automobile was merely a concept, no one had ever flown, the conquest of space was limited to telescopes and electrical circuits and computers had yet to be imagined.

Today, American Brass supplies materials to all of these industries.

In 1886, however, the uses for brass were much less diverse. Edward D. Tuttle, the Midwest sales representative for the Scoville Manufacturing Co. of Waterbury, Conn., believed the time was ripe to establish another brass mill in this part of the country. The only other mill west of Rome, N.Y., was located in Detroit and it was less than a decade old.

Like many aspiring entrepreneurs, Tuttle had one major roadblock to success: He had a splendid idea but no funds to see it through. At the time, brass was used to produce buttons, organ reeds, gas lighting fixtures, plumbing and cans. Believing that one of these products might supply the answer to his dilemma, Tuttle looked to his company's customers for his answer.

One of the Scoville Co.'s clients was the Elgin National Watch Co. in Illinois. Tuttle was well acquainted with the watch company's president, Thomas Avery, and he learned that Avery not only needed a regional supplier for his business, but that

he also intended to establish a business enterprise for his newly-married son, Frank. Tuttle mentioned his intent to construct a brass mill, and Avery agreed to supply the money for one in the Chicago area. Avery would be the company's general manager, while Tuttle would be responsible for the plant's day-to-day operations.

The newly-formed company would be called the Chicago Brass Co.

In searching for a suitable site, Tuttle again turned to his business acquaintances.

Zalmon G. Simmons, founder of the Simmons Manufacturing Co., whose metal beds and innerspring mattresses were to attain a national reputation, was one of Tuttle's longtime business associates. Simmons was also a Kenosha mayor and a founder and president of the First National Bank. He liked Tuttle's plan and realized that the new brass company could be a valuable asset to the city. Hoping to entice the company to locate in Kenosha, Simmons, along with a group of local businessmen, including Edward Thiers and Charles C. Brown, offered to donate the land for the plant.

The site was a strip of farmland known as Snakeville, on which the eastern half of the main plant was built and continues in operation to this day. Ground was broken for the plant shortly after Tuttle, Avery and Simmons reached an agreement. On Oct. 21, 1886, the Chicago Brass Co. was officially chartered by the State of Illinois.



American Brass office workers circa 1909

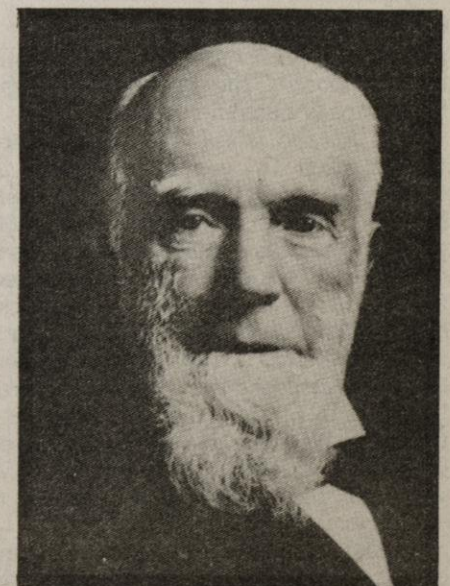
It would undergo many changes over the next century.

#### Chicago Brass to American Brass

The mill was erected during the summer and fall of 1886. The original site included a rolling mill with attached power house and an adjoining casting shop with 40 crucible fires. About 100 men, many brought in from the Scoville Co., were employed that first year.

Three years later, the first expansion of the plant occurred with the construction of a separate group of buildings which housed three departments... brazed tube, organ reed and printer's rule.

The company's executive offices were maintained in Chicago, rather than in Kenosha, with sales and merchandising of the company's products carried out by a group of traveling salesmen. Among the company's early customers were manufacturers of brass beds, gasoline lamps,



Z.G. Simmons

(continued on page 4)



American Brass employees assemble outside of the factory around 1910

## Brass roots

(Continued from page 3)

name plates, soda fountains, cracker cans and washboards. The organ reed business found steady customers in England.

The Chicago Brass' early years were characterized by continued growth in spite of a string of hardships and setbacks. In 1892-93, a national depression crippled the brass industry, while a serious diphtheria epidemic in Kenosha caused the deaths of a number of local stockholders and company personnel, including Edward and F.J. Tuttle, the father-son team who managed the company's operations. In 1898, an ailing Thomas Avery transferred all but five of his shares of Chicago Brass stock to his son, Frank. A year later, the younger Avery committed suicide in a southside Chicago hotel.

In the last years of the Avery ownership, Chicago Brass was operated by Frank Avery's widow, May Clark, a well-known actress, and Frederick L. Titsworth, a former accountant at the watch company who rose through the

brass company's ranks to become its director. Mrs. Avery was advised to sell the company and, in 1901, almost exactly 15 years after the founding of the company, Chicago Brass was purchased by the Coe Brass Manufacturing Co. of Torrington, Conn., a subsidiary of the newly formed American Brass Co.

At the time of the sale, brass production was peaking, moving more and more into the expanding electrical field. When Western Electric announced that it intended to move its operations from New York to the Chicago area, the new owners of Chicago Brass planned a major expansion of the Kenosha plant, which had deteriorated at the end of the Avery ownership. Plans for expansion included the erection of a new tube mill, casting shop and power houses.

In 1907, another depression halted expansion and seriously threatened the plant's operations. A year earlier, the company's net profit had been \$248,000;

(continued on page 5)



Brass office staff at their desks in the early 1900s

## Brass roots

(Continued from page 4)

in 1907, the losses amounted to \$285,000. Complicating matters was the fact that no one in the area was experienced in operating the new tube mill, which was revolutionary in its design. Yet the plant continued in operation, adding a new rolling mill in 1910, and in 1912 an extrusion department to manufacture brass rods and shapes.

On Feb. 28, 1912, the remaining stockholders of the Chicago Brass Co. sold the company to the American Brass Co. in Waterbury, Conn. In June, the name of the Kenosha plant was changed to the Kenosha Branch of the American Brass Co.

The onset of World War I created a boom in the brass business. The Kenosha plant was flooded with orders for export, particularly to Canada and Great Britain. Sales figures soared from a \$3 million profit to nearly \$22 million in 1916. Facilities were again expanded to handle the increase in business. At the peak of its operations during the war, the company employed more than 2,400 workers, and averaged a monthly output equal to the annual production in 1902. Principle products included special materials for ammunition, trucks and condenser tubes for the Navy.

After the war, brass industry production levels dropped off sharply, but the growing automobile industry kept the Kenosha plant in production. Despite a 62 percent decline from its peak production during World War I, the Kenosha plant was the only branch of the American Brass Co. that did not report a loss in 1921.

### The Anaconda years

In 1922, the American Brass Co. purchased the stock of the Anaconda Mining Co. Domestic consumption of copper had fallen nearly 65 percent the preceding year. Yet American Brass, which represented over 40 percent of the nation's fabrication of copper and brass products, seemed to be a stabilizing influence on Anaconda's mining operations.

The merger brought together the world's largest copper mining conglomerate and the world's largest manufacturer of copper and copper alloys, thus bringing to each the advantages and economies of vertical integration both had previously lacked.

The continuing growth of the electrical industry also made the merger sound. In 1924, Kenosha began producing bare copper wire and cable. This became an important part of the Kenosha operations for nearly six years, until the parent company formed the Anaconda Wire and Cable Co. The Kenosha plant also ceased manufacturing brazed tubing which had become obsolete with the growing acceptance of a seamless product.

Even with these setbacks, the company continued to be profitable. By the mid-'30s, the Kenosha plant had expanded to more than 15 acres and was one of the largest factories in Wisconsin. Its engineering and scientific research departments were the envy of the industry, and its product lines had diversified to include sheet metal, pure copper sheeting and die press parts, as well as the production of brass, bronze and nickel alloys.

In 1942, the plant's workers organized their first union, electing to be repre-



### Modern times still need smithy

Although times have changed and machines have replaced many of the former jobs, the Brass still finds a need for a blacksmith. Dick Mercer repairs chains, tongs, spoons and ladles.

sented by the Brass and Copper Workers Federal Labor Union No. 19322. It was a union that would continue to represent employees for 20 years.

During World War II years the plant reached its highest point of activity. Shortly before the war began, the War Department assigned the company the task of producing shells for arms ammunition. At the height of production, more than 3,000 workers were employed at the two Kenosha companies. A subsidiary company, called Kenosha Brass, was formed to fulfill the government contract.

On June 16, 1943, the Army and Navy presented the Kenosha Brass Co. and the Kenosha Branch of the American Brass Co. with the Army-Navy "E" Award for "high achievement in producing materials needed for war."

After the war, the company again focused on expanding and updating its facilities. The plant's tube mill was rebuilt, and a new rod mill replaced the hot press department. The company also added new, advanced machinery, such as a piercer, a hot roll for strip and a hydropress. These improvements, along with a steady stream of brass and copper customers, helped keep American Brass consistently profitable.

In 1962, the plant's production workers changed their union affiliation from the Federal Labor Union to the United Steelworkers Local 9322. Five years later, a 9-month industrywide copper strike shut down Anaconda's entire domestic copper, lead and zinc operations, and most of its brass-fabricating and copper wire installations.

Despite the strike, company and labor relations in Kenosha were at a sufficiently high level to prompt American Brass Co. to invest \$5 million in a major construction project which commenced while the labor dispute was in progress.

Included in the project was an 8-story building designed to house a strand an-

nealer, a machine which treats, strengthens and cleans metal after it leaves the milling machines.

Francis Seavitte, plant manager, commenting on the machine's impact in terms of quality and production efficiency, observed that "We make the finest brass in the industry and this will put us far ahead."

During the mid-'60s, Anaconda's Kenosha division employed about 1,300 people and was one of the company's largest divisions. The company's scientific research and engineering departments continued to break new ground in a number of important research projects, while Anaconda's mining divisions explored new methods of mining copper in Montana, Canada, Mexico, Chile and Peru.

### The Arco years

The early '70s found the brass industry in a state of flux. Customer demand and product lines were changing. Competition was fierce and the company, which had cut its prices in 1968 to stay competitive with the national market, was forced to eliminate many salaried and hourly jobs to reduce its costs.

Bowing to nationalist demand for state ownership of its copper mines, Anaconda sold its copper mining interests in Chile. At the time of the sale, Chile was the world's fourth largest copper producer.

The year 1977 witnessed two major events ... a 6-month strike and the purchase of Anaconda by Atlantic Richfield.

Besides the Kenosha plant, Anaconda Industries, the new subsidiary of Atlantic Richfield, had metal manufacturing plants in Los Angeles, Detroit, Waterbury (Conn.), Ansonia (Conn.) and Buffalo. The early years of ARCO ownership found the company restructuring, diversifying, and changing priorities.

Not all of the changes bore a positive effect on the Kenosha plant. Jobs were phased out and workers were laid off. The

(continued on page 10)

## American Brass: a chronology

**1886** — Chicago Brass Co. organized by Waterbury (Conn.) businessman, Edward D. Tuttle, and Thomas Avery, an Elgin watch company executive, to manufacture parts for the watch company. Land for plant donated by prominent Kenosha businessmen, including Zalmon G. Simmons. Factory built in Kenosha.

**1888** — Facilities added to manufacture brazed tubing and organ reeds.

**1901** — Chicago Brass Co. sold to the American Brass Co.

**1907** — Plant expanded with a new tube mill, power house and casting shop.

**1910** — New rolling mill installed.

**1912** — Chicago Brass Co. dissolved. The official name of the Kenosha plant changed to the Kenosha Branch of the American Brass Co.

Extrusion department added.

**1918** — Drawn copper department added.

**1919** — Electric casting shop installed.

**1922** — American Brass Co. purchased by Anaconda.

**1924** — Kenosha plant began producing bare copper wire and cable.

**1941** — Kenosha Brass formed to fulfill government war contracts.

**1942** — Plant workers vote to be represented by the Brass and Copper Workers Federal Labor Union No. 19322.

**1943** — The Army-Navy "E" Award presented to Kenosha Brass and Kenosha Branch of the American Brass Co.

**1945** — Seven-week strike.

**1955** — Addition to copper tube mill and rod mill buildings constructed.

**1962** — Employees become affiliated with the United Steelworkers Union.

**1967** — Eight-story strand annealer constructed as part of 3-year, \$5 million plant expansion project. New rolling mill building constructed.

Nine-month industrywide strike.

**1977** — Anaconda purchased by Atlantic Richfield Co.

Six-month strike at Kenosha plant.

**1978** — Continuous casting operation installed.

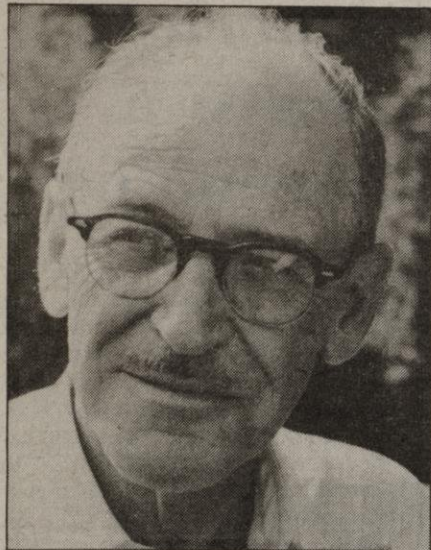
**1980** — Plant ceased production of copper water tube and rod.

**1982** — Anaconda Industries and Anaconda Aluminum merged to become ARCO Metals Co.

**1984** — Three-week strike.

Company put up for sale by ARCO.

**1985** — Company sold by Atlantic Richfield to Buffalo Brass.



H.J. Rafferty  
... 1954 photo

## Robberies color Brass' history

In the Kenosha Brass plant's early years, two robberies occurred, one making a hero out of a young office clerk, the other costing a policeman his life.

The first took place on the evening of Dec. 12, 1909.

Hugh Rafferty, an 18-year-old office clerk, had been given a box containing \$900 to deliver to the tube mill of the Chicago Brass Works. To reach the mill, Rafferty had to walk across a short stretch of land and cross a railroad track where railroad cars were standing. Accompanying Rafferty was John McHaney, a fellow clerk from the company office.

When they had reached the railroad tracks, McHaney stepped over the coupling unit between two cars and took the box from Rafferty. Just as Rafferty was climbing over the coupling unit, a man jumped out from behind the car, hit McHaney over the head with a hammer, and sprinted away with the box of money.

Rafferty pursued the robber, catching him after a long chase in and out of the cars of the parked train. The robber, still armed with the hammer, swung the weapon at Rafferty, but the Brass worker avoided the blow.

In the ensuing flight, Rafferty struggled with the robber and finally overpowered him. By the time Rafferty had subdued the man, other workers had arrived on the scene. Bruised and bleeding, Rafferty clung to the cash box while his co-workers turned the robber over to the police.

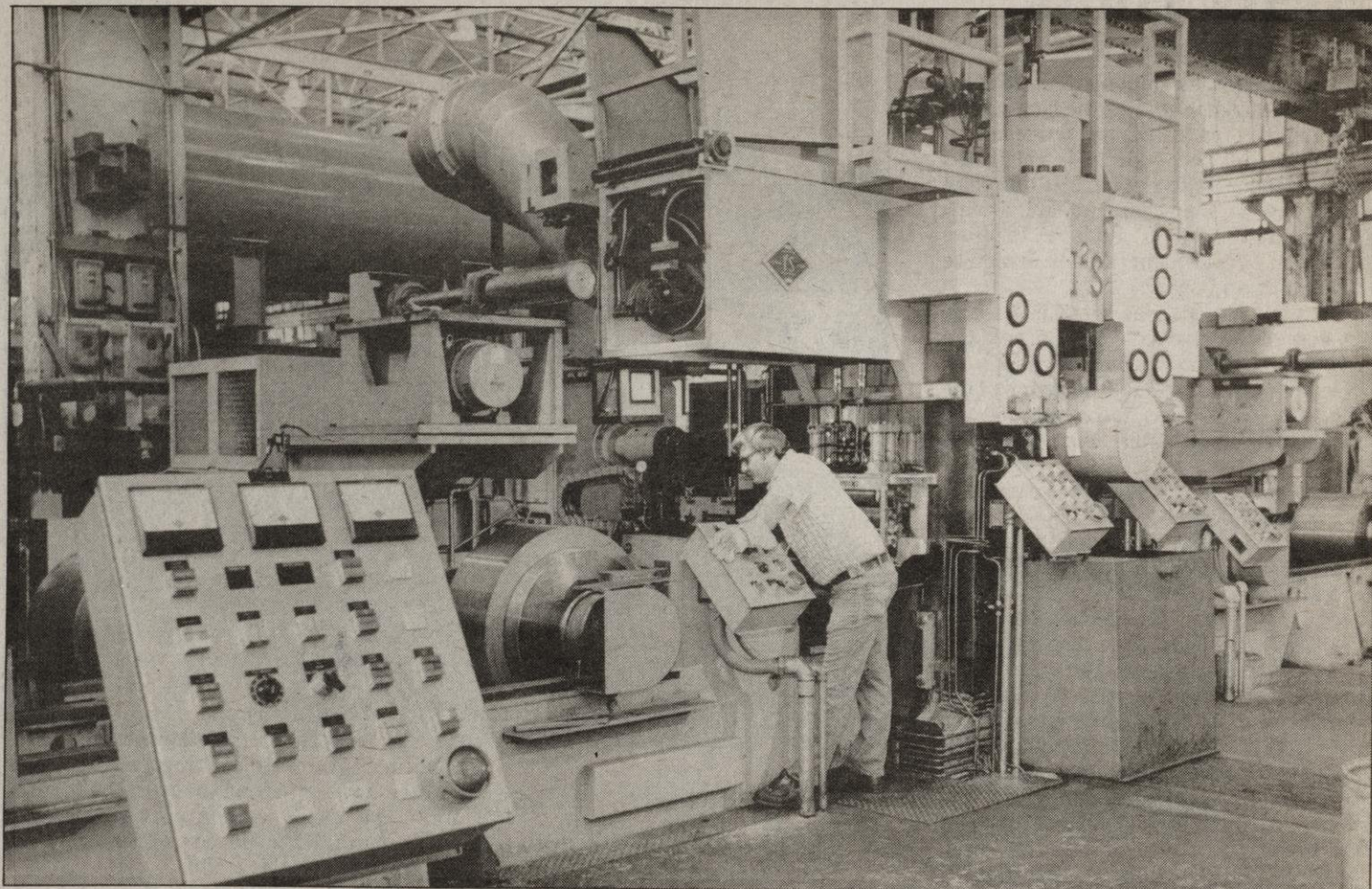
The robber turned out to be a former employee who had traveled from Boston to Kenosha to commit the crime.

### Robbery Cost Policeman His Life

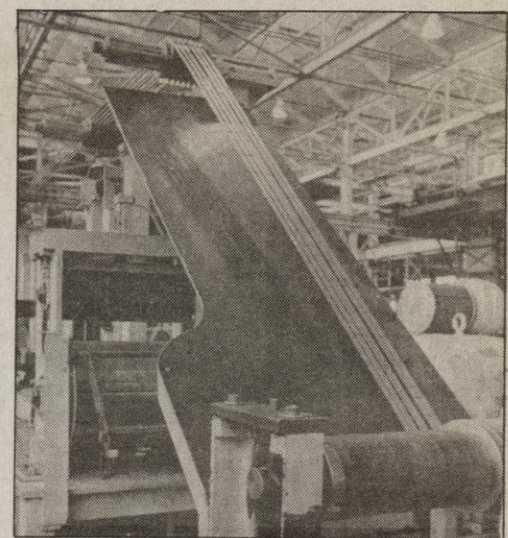
Nearly 10 years later, the plant was confronted with another robbery, but with much graver consequences.

On March 30, 1919, three masked

(continued on page 7)



Donald Sellman on 56 roll operation, part of a \$9 million, 1984 expansion project



## Sheet mill

In terms of potential sales for the company, the sheet mill is one of the most important areas for American Brass' Kenosha plant. Here cast copper and its alloys are rolled under intense pressure to exacting customer specifications. Large equipment can roll sheets as thick as 5/8-inch to about the thickness of heavy-duty aluminum foil. The sheet mill also houses annealing equipment which heats metal to soften it from rolling. The company's 5-story-high strand annealer, left, was installed during a 3-year, \$5 million expansion project that began in 1967 under former owner Anaconda. The rolls over which metal travels are take-up devices which allow an operator time to fasten coil ends together for a continuous operation. Another major part of the sheet mill is the slitting function, above, which cuts a continuous sheet of rolled metal into several strands which are then wound onto spools.



Joseph Goodell, new president of American Brass after its December 1985 purchase by Buffalo Brass, addresses employees

## Brass robbers caught, convicted

(Continued from page 6)

bandits entered the main office of American Brass and waited for the night watchman to arrive on his rounds. It was a Sunday evening and there was no activity in the plant.

When the watchman entered the mail room on his 9 o'clock rounds, he was taken at gunpoint to the men's room, where he was bound and gagged. One of the robbers was left to guard him.

The other two men proceeded directly to the second floor, which held the only vault on the premises containing anything more valuable than petty cash or company records. It was never learned how the robbers knew of this arrangement.

At the time of the robbery, the vault contained nearly \$36,000 in cash, Liberty Bonds, and war stamps. The fire-proof vault was not designed to be burglar-proof and was constructed of hollow tile and masonry.

The men blasted their way into the vault, using explosives to blow a hole through a wall in an adjoining storage closet. Working solely by flashlight, the two men pried open all but one of the steel compartments in the vault. Iron-

ically, the untouched compartment contained more than \$8,000 in cash.

Shortly after midnight, the three robbers left the plant and commandeered a cab at gunpoint. They ordered the cab driver into the back seat and told him they were driving the taxi to Chicago.

Needing gasoline for the trip, the men stopped at a nearby service station. A policeman was using the telephone inside. He had heard about the robbery from a call box on his beat but, because of a bad connection, he decided to use the service station phone to obtain details. It turned out to be a tragic decision.

The robbers and cab driver entered the building and when officer Anthony Pingitore saw the gun trained on the hostage, he instinctively tried to draw his revolver. Officer Pingitore was killed instantly by a single shot fired by one of the robbers. He was survived by his wife and eight children. The three robbers fled, leaving the cab driver behind.

They then drove to Lake Geneva, abandoned the car in a ditch, hid their luggage behind a billboard in an adjoi-

ing field, and bought tickets for a train to Chicago.

Word of the policeman's murder spread, and when the train's conductor noticed three men who fit the description of the killers sitting in the smoker, he called the police and asked them to meet the train at the main station. The men, however, escaped by leaving the train at a suburban stop.

For months nothing happened. The men seemed to have disappeared without a trace. A piece of green material found in one of the abandoned suitcases provided a breakthrough in the police investigation.

The material appeared to be a cutting from a man's suit. After weeks of canvassing the tailor shops in and around Chicago, the police found an elderly tailor who was able to identify the buyer of a suit made of that material.

The police arrested two of the robbers on Nov. 6, 1919. They were brought back to Kenosha for trial and the third man was soon identified by one of the robbers. The two masterminds of the robbery were given life sentences, the third robber a 30-year sentence.



Anthony Pingitore

There is one odd footnote to the robbery: Two of the men had purchased a Florida orange grove with their shares of the money. After the trials, American Brass was given the criminals' equity in the orange grove, which the company sold at a price barely covering expenses of the sale. Six years later, at the height of Florida's land speculation, that same property, to be developed as a subdivision, sold for \$75,000.





## Rafferty with Brass for 50 years

Hugh J. Rafferty, the young man who apprehended the robber, spent half a century at American Brass.

At his retirement as a division manager in 1959, Rafferty had the longest record of any employee in the company. He had started when "Teddy" Roosevelt was president and when unpaved 63rd Street was a trolley route past the American Brass plant.

When he was hired, Rafferty was paid \$8. But, he noted, there were no deductions.

As division manager, Rafferty had charge of "everything except production." Few jobs were unfamiliar to him. He had done all the office hiring, been responsible for credits and collections, handled public relations, followed legislation and worked in a host of other capacities.

Rafferty, who died in 1974, established a number of milestones with American Brass. In 1912, he paid the company's first unemployment compensation claim under the pioneering Wisconsin law. Three years later, when he moved into the main office to do general accounting, he was the first to use a calculating machine.

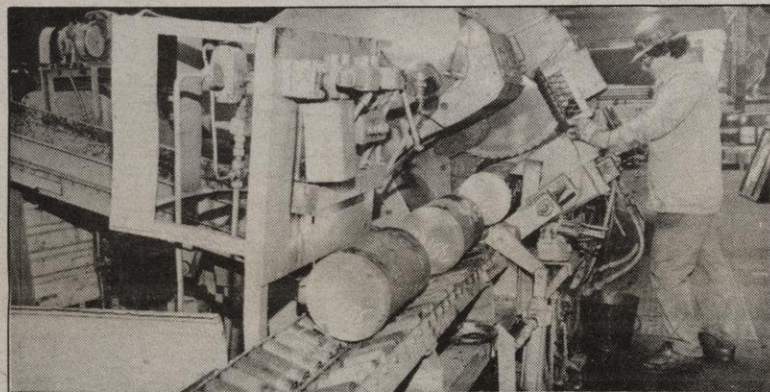
## Casting

In the casting department, copper and alloys are melted and mixed in proper proportions for intended use. Continuous sheets about 5/8-inch thick can be cast, milled to remove surface imperfections and coiled in one process, right and below. Once

coiled, it can be moved to the sheet mill to be rolled to a finished thickness and sheared or slit. Other furnaces are used to cast billets or cakes. The billets - 8 to 10 inches across - are cut, lower photo, to be drawn into tube or solid bar form.



Keith Anderson checks the sheets of metal



Frank Marchese cuts billets into usable lengths



Karl Ross pours the molten metal

## Lynch brings experience, enthusiasm Community minded

Last month, Jack Lynch was appointed acting general manager of the American Brass plant in Kenosha. Lynch replaced James Purviance, who had held the position since Buffalo Brass, Inc. acquired the plant in December 1985.

A graduate of Massachusetts Institute of Technology in metallurgy who has identified with the brass industry since 1955, Lynch served as a consultant to Buffalo Brass when the company was considering the purchase of the ARCO Metals plants. The company retained him because he possessed superior technical knowledge in a highly specialized industry, and the ability to trouble-shoot at any of its plants.

"Jack's an old hand in the brass business and technically one of the most competent individuals in the nation's brass business," said Joseph E. Goodell, company president and chief executive officer.

"He's been working on improving our ability to manufacture difficult alloys, and he's had some successes. We're confident that the result of his work will be the production of alloys we are endeavoring to develop."

Ten years ago Lynch was plant manager at the company's Buffalo installation. He then accepted a job as president of

Century Brass. Having seen how the two plants operate, Lynch intends to coordinate the Kenosha and Buffalo factories in the interest of a more cost-effective overall operation.

"One area where we see potential for growth is in bringing welded tube from Buffalo and finishing it here," Lynch says. "I feel that's a very important area, since it will enable us to explore the unique qualities of the operation we have here."

Lynch says the Kenosha plant's annealing furnace is one of the plant's special features which has yet to be developed fully. The quality of the product in this operation, Lynch points out, is impressive.

"The annealing furnace gives you reflective, mirror-quality metal without cleaning," Lynch says. "You can see your hand in that metal. Right now, this equipment is running only about one shift — a third of its capacity."

Lynch adds that response to the product from prospective customers, has been favorable.

Lynch also hopes to continue the pattern of excellence in product quality and plant stability set by his predecessor. Purviance has been promoted to vice president of operations for the company.



Jack Lynch

Over the years, American Brass has maintained close ties with the Kenosha community through charitable contributions and participation in community affairs.

The Brass has urged its employees to be active in the community.

"We encourage participation," said William Girman, employee relations manager. "In the past, we were able to donate a significant amount of money to separate charitable organizations. For United Way, the company would double whatever our employees pledged."

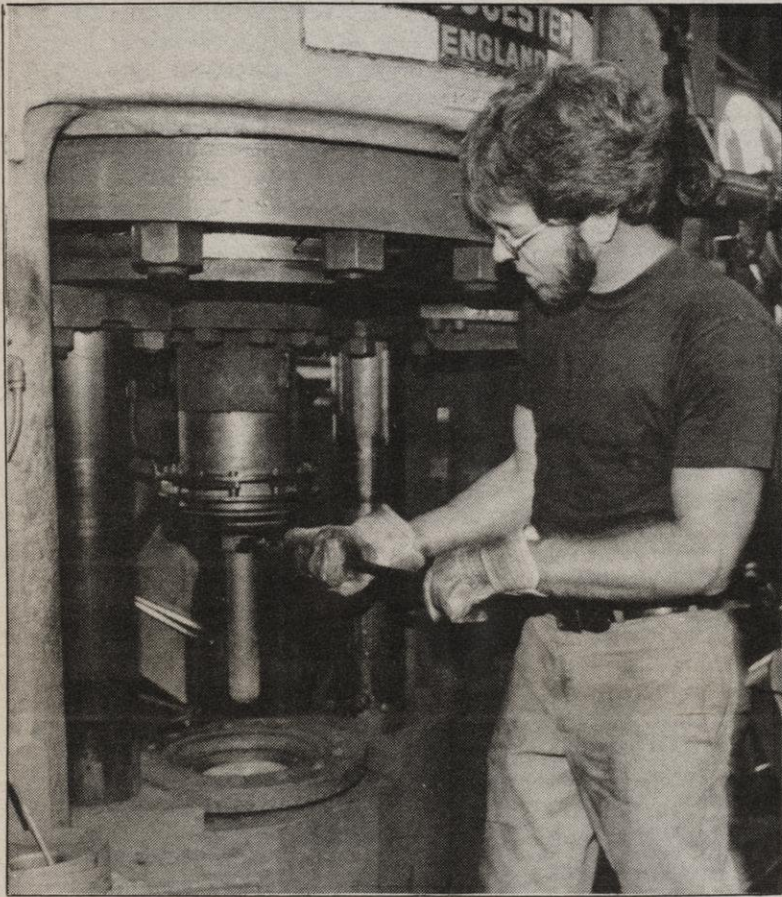
"Our employees are also active outside the plant. We've had aldermen and County Board members, people working for the Salvation Army and the soup kitchen and volunteers for the Boy Scouts and Girl Scouts. We've also had successful blood drives. American Brass employees seem to be involved in just about every community activity."

Mark Knickelbine, communications director for United Way of Kenosha County, calls American Brass "a model corporate citizen." The company and its employees have pledged more than \$133,000 to United Way during the last two years, making American Brass one of United Way's top 10 contributors in the area.

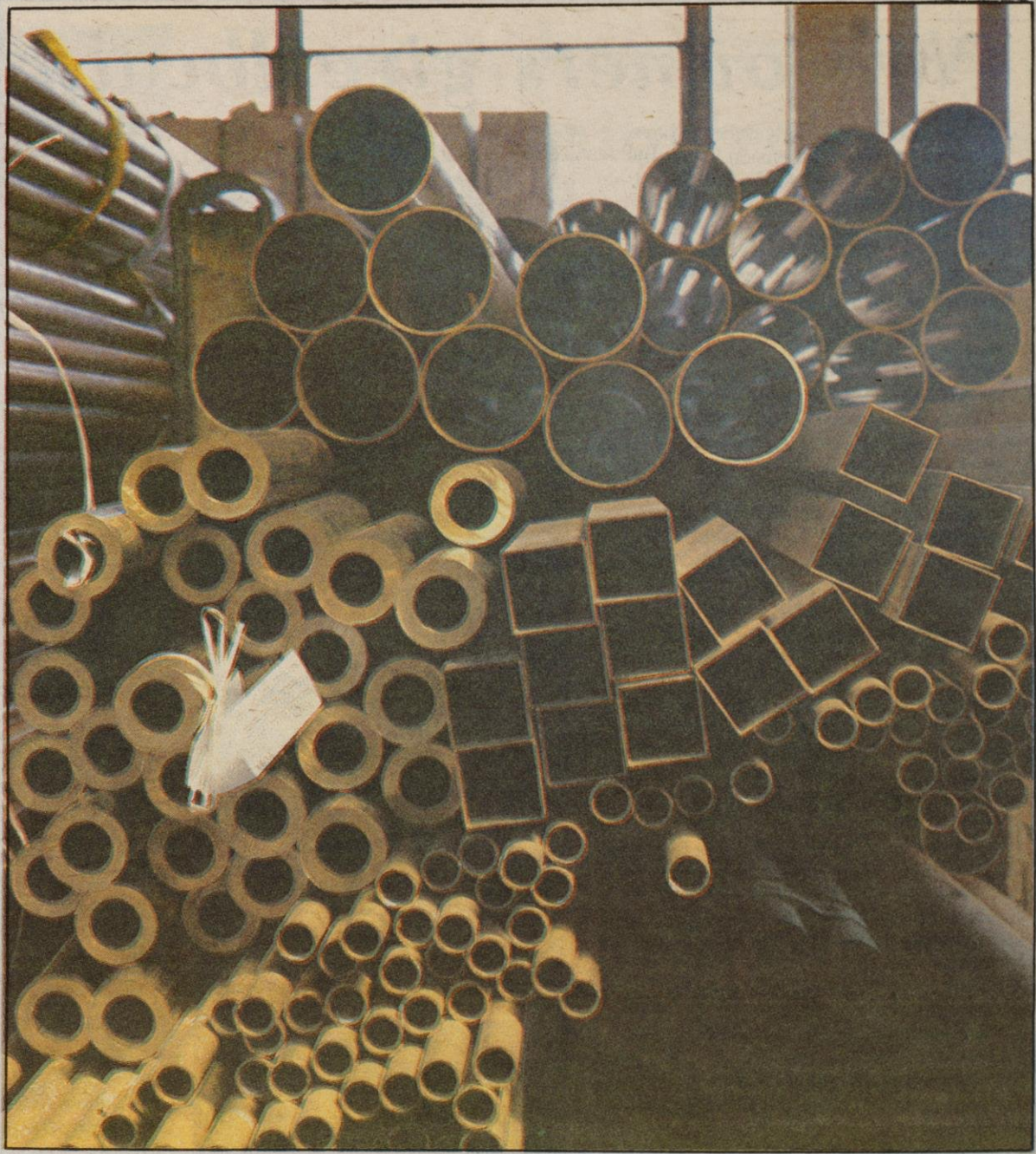
# Tube mill

A variety of processes can be used to bring bars to finished sizes, shapes and lengths in the tube mill, right. In one modern process, below, a bored cylindrical bar is heated and placed in a container. A high-temperature steel shaft is inserted to maintain the inside diameter of the tube,

and a ram forces the metal through a die at intense pressure to create the desired width of the tube. Bars can also be pulled to lengths up to 72 feet on the drawbench, lower left. After finishing, the tubes are cleaned to remove lubricants, center, and weighed, lower right.



William Langendorf operates the vertical press



The finished product comes in various shapes, sizes



Buster Davis draws tubing from press



Henry Fuerstenberg ... degreases tubing



Rexanna Smallwood ... weighs tubing



# New owners give local plant autonomy

The owners of American Brass have brought a new dimension of management to the plant, William J. Girman, employee relations manager, observed. The major difference, Girman said, is a less complicated corporate relationship between Buffalo Brass and the Kenosha plant.

"I prefer working under Buffalo Brass because it's smaller," Girman said. "ARCO was a very large company and there was a lot of bureaucracy — a lot of rules, regulations and paperwork, and not much freedom for us to do what we thought needed to be done."

Girman, who has been with American Brass since 1965, has seen three different ownerships during his tenure at the plant. The new owners, Girman indicated, offer the Kenosha plant the opportunity to achieve a long sought goal: to succeed on its own terms.

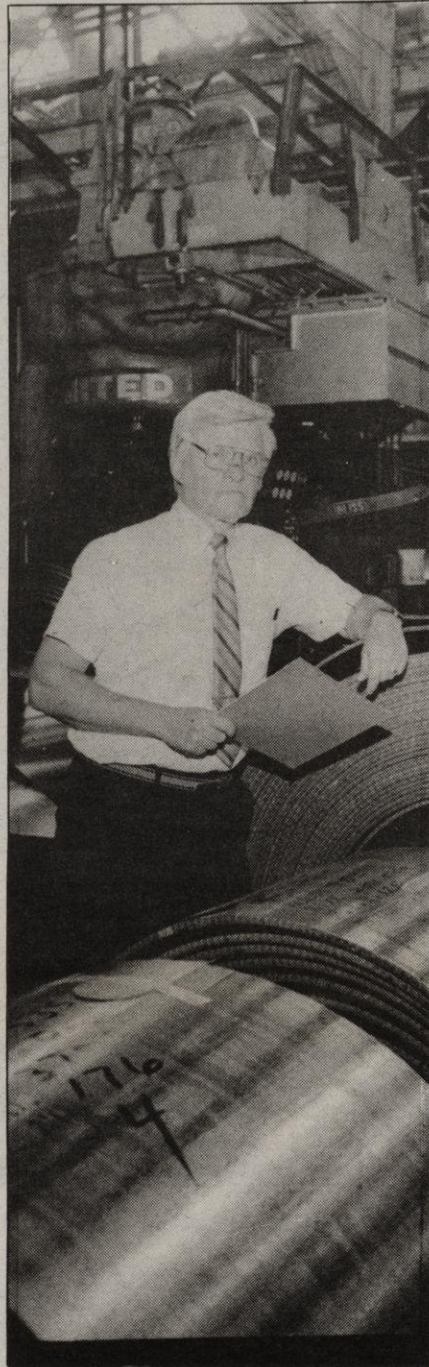
"We've now got the freedom to do what we consider appropriate as long as we are profitable," Girman explained. "We have free rein. There's not a lot of procedure or policy or rules. We're in control of our own destiny more than we ever have been."

All this spells relief for the 715 Brass employees who weren't sure less than two years ago that they would even have jobs at this time.

In July 1984, ARCO Metals Co., the owner of the Kenosha plant, announced that it was selling or closing its operations in six cities. W.T. Chamberlain, president of ARCO Metals, said that he hoped to sell all of the company's installations as part of a package deal, but there were no guarantees.

A number of companies showed interest in the Kenosha facility which had a good profit history despite changing trends in the industry and growing competition from foreign imports. The potential company's buyers ranged from competing metal businesses and manufacturers using brass products to foreign companies looking for investments in America. In all, about 80 potential buyers inquired about the ARCO sale.

The Kenosha plant offered an especially attractive opportunity. In addition to its reputation of being profitable in a shrinking industry, the Kenosha factory was well regarded for its highly skilled work force and its tradition of good labor-management relations.



**William Girman**  
... through 3 owners

This relationship continued even during periods of strike-related work stoppages which were primarily of a national rather than local nature. Nearly 75 percent of the factory's hourly employees had worked at least 10 years at the plant.

*The new owners offer the Kenosha plant the opportunity to to succeed on its own terms. "We've now got the freedom to do what we consider appropriate as long as we are profitable. We have free rein. There's not a lot of procedure or policy or rules. We're in control of our own destiny more than we ever have been."*

William Girman,  
employee relations manager

The company also took pride in a series of modernization projects, from the construction of new facilities to the addition of new, state-of-the-art machinery. At the time of the sale, the Kenosha plant had developed nickel and silver alloys unavailable anywhere else. The years prior to the sale found the company gradually replacing its sheet metal operations directed toward the automotive industry with a new priority that addressed the demands of highly specialized markets such as the growing fields of electronics and computer production.

Buffalo Brass, Inc. was formed to negotiate the purchase of the six ARCO plants. The investment firm was a corporation consisting of prominent Buffalo-area businessmen and investors.

Randolph A. Marks, founder of the Computer Task Group and chairman of the Buffalo Area Chamber of Commerce, was one of the driving forces behind the Buffalo Brass purchase. As a former chairman of the Computer Task Group, Marks had overseen an operation that created and installed major computer systems.

Another Buffalo businessman leading the way was Paul W. Joy, a partner in Sandbrite and Co., a Toronto investment group. Joy had been chairman and director of Carborundum

Abrasives. Along with Marks, Joy spent more than six months negotiating the purchase of the ARCO Metals plants.

Integral to the financing of the project were the Erie County Industrial Development Corp., a government agency established to attract business and develop tourism in upstate New York, and the Western New York Development Corp., a state agency.

Buffalo Brass and ARCO reached an agreement in principle on July 19, 1985. Finalizing the sale took nearly five months, as documents were prepared the new owners met with union officials to iron out contract agreements.

Worker and union involvement, Girman asserts, was a key issue in the Buffalo Brass decision to purchase the Kenosha facility.

"One of the reasons they retained us was the fact that we have such good worker-management relations," Girman noted. "They recognized this. The employees and unions did a lot to cooperate in assuring the sale of the plant and the future of the business. They sat down and negotiated a contract that was less expensive to the new owners, and that really helped."

Peter Rohde, president of United Steelworkers Local 9322, which represents the company's production workers, says cooperation between union and management was simply a matter of survival.

"We tried to prove to the new owners that the Kenosha plant was worth saving," Rohde says. "We realized when ARCO was here that we had to change the attitudes of the people, including our members and management, if we were going to stay afloat. It's turned way around from what it was like in the 1960s."

After the sale, the new owners elected to maintain the plants in Kenosha, Buffalo and Franklin, Ky. Joseph E. Goodell, president of American Brass, agrees with Girman that the new Brass has less bureaucracy than the company's larger predecessors. He adds that the smaller communities in which the plants are located have helped make his company more responsive.

"They are fine communities," Goodell remarked. "The city fathers have welcomed us and have taken an interest in us, and we appreciate that very much."

## Brass roots

(Continued from page 5)

company ceased producing copper water tube and pre-cut brass rods in Kenosha.

In 1982, Anaconda Industries and Anaconda Aluminum merged to become ARCO Metals Co. The name of the Kenosha operation became ARCO Metals, American Brass Operation. In Kenosha, people continued to refer to the plant as simply American Brass.

A year later, future prospects rose with an ARCO announcement that it planned to invest \$90 million in company ex-

pansion projects, \$9 million of which was to be spent in improving Kenosha's sheet metal operations.

On April 9, 1984 local steelworkers and machinists began a three-week strike at the Kenosha plant. The Kenosha workers had voted to accept a new contract offered by ARCO, but had to picket until a settlement was agreed upon on a national level by all five ARCO plants.

Several months later, Atlantic-Richfield directed the ARCO Metals Co. to develop a divestiture plan affecting all of its plants.

The reason for the action, said W.T. Chamberlain, president of ARCO Metals, was the company's "unsatisfactory financial returns." The decision jeopardized the jobs of the Kenosha plant's 715 workers, including steelworkers, machinists, and management personnel.

The plant had been open for 98 years and had witnessed a number of changes in ownership and direction. Company officials and workers hoped that somehow ARCO would find a buyer for the factory, and those hopes rose when

several metal industries expressed interest in the Kenosha operation.

On Dec. 9, 1985, Buffalo Brass, a Buffalo, N.Y., investment group, officially assumed ownership of the ARCO plants. In speaking to Kenosha employees assembled in the plant's sheet metal mill, Joseph E. Goodell, new president of the American Brass, said that he saw a bright future for the metals industry, and that the new company intended to rebuild American Brass in "a spirit of cooperation."



Steelworkers' President Peter Rohde is a sheet mill roll operator

## Respect, honesty keys to good union relations

Peter A. Rohde, president of Steelworkers Local 9322, has seen a lot of changes during his 25 years at American Brass.

He has worked for three different owners and has been represented by two different unions. Plant managers have come and gone. Product priorities have shifted. Periods of stability have followed periods of turmoil and uncertainty.

Rohde is quick to point out that, despite the adversity and changing times, American Brass has not only survived but has evolved into what he believes is a good place to work.

"When I started here, we had about 1,100 employees," Rohde said. "We had a lot of hard jobs — bull work. You couldn't walk in our casting shop and see more than 10 feet because it was so dusty and dirty. As it is now, the place is completely turned around."

Rohde credits this major change to a successful relationship between the plant's unions and management. It is no coincidence, Rohde asserts, that improvements at American Brass reflect the improvements between the company and its employees.

In 1962, a year after Rohde started working at the plant, production workers voted to be represented by the United Steelworkers. Previously, the Brass and Copper Workers Federal Labor Union 19322 had represented the plant's workers.

The factory's skilled trades employees had been affiliated with the International Association of Machinists union since 1948.

The early years with Local 19322 were rocky. An adversarial relationship existed between the workers and management. In 1967, the Kenosha plant was caught in a nationwide strike that lasted nine months.

Relations between plant workers and management improved, Rohde says, because the American economy was changing and rapport between the two groups was needed not only to make work bearable but to actually keep the company alive.

The big difference involved a change in thinking.

"The attitudes changed from what unions were in the 1960s to what they are right now," Rohde explained. "I think management can see that the laborers are working with them as much as they can to keep their company going."

Workers were encouraged to become more involved with the company, and vice-versa. The Employee Participation Programs and Quality Circle projects were established to help make workers feel they had more voice in company policies.

Even during work stoppages, such as the 3-week strike in 1984, tension was kept to a minimum. After that strike ended, plant management welcomed workers back by treating them to steaks.

Rohde believes American Brass' new owners will continue the trend that has developed during the last 20 years.

"They're honest people," he said. "They treat our people well and they keep us informed. We feel that, with the new owners, we have a good future in Kenosha."

## Company program seeks workers' ideas

No company can operate efficiently if there is an adversarial relationship between management and employees, and American Brass is no exception.

During the ARCO ownership years, the Quality Circle program was developed, and today it stands as an outstanding example of how management and labor can work together to solve problems and help make day-to-day operations run more efficiently.

A Quality Circle is a small group of people from the same work area who meet on a regular basis to identify, analyze, and solve problems that crop up. These meetings occur outside regular work hours and are voluntary.

Participants in Quality Circle programs feel that they have a strong voice in determining product quality, and in improving overall working conditions.

Management/labor cooperation wasn't always a certainty at the Brass, said employee relations manager William Girman. In the past, the relationship between workers and supervisors was often strained.

"Years ago, when I got here, foremen wouldn't listen to their workers' suggestions," Girman explains. "There was more of an authoritarian type of atmosphere, and there was a pretty wide gap between

*Participants in Quality Circle programs feel that they have a strong voice in determining product quality, and in improving overall working conditions.*

those who managed and those who did the work.

"In order to survive in this very competitive business, management and labor have to work together. We have solicited the workers' help and they have really come around to help us. They're more involved than they ever were before."

The Quality Circle concept has been largely responsible for this development.

The program was developed in October 1980 by Bruno Eisner and Fred Smith, two American Brass managers who have since been transferred to the corporate headquarters in Buffalo. Eisner was then vice president/general manager of the Kenosha plant, and Smith was a metallurgical engineer. Between them, they had over 50 years of experience at American Brass. They realized that a change in attitude could contribute signifi-

cantly in improving relations and productivity in an industry where competition is worldwide.

The circles usually meet for an hour, twice a month. During the meetings, various problems are discussed. Circle members try to determine which areas need research and how much funding may be required to solve the problems or improve the work situation.

When a team decides on a course of action, it presents its findings to a steering committee of Brass management and union leaders. The two groups then make revisions and present their recommendations to the company's review committee. The process usually takes about six months.

In 1981, three Quality Circles were in operation. The plant now has 19 teams, with a total employee involvement of 120 salaried and hourly employees, or 18 percent of the total work force. All three shifts are represented, though the first shift has the greatest number of teams.

So far, the results have been impressive. Quality Circle recommendations helped establish a preventative maintenance program which has reduced machine breakdowns. Another program resulted in the plant's staggering the starting times of work shifts to save electricity.

Quality Circle's greatest achievement to date, in terms of monetary savings, has been its metal reworking program which suggested ways the company could recycle scrap metal once discharged by machines. Company officials estimate that recycling the previously discarded metal saves American Brass more than \$25,000 annually.

"We are certainly impressed with the results of our employee participation program," says Bill Beardsley, industrial engineering manager and an active member of the Quality Circle program. "It's helped reduce the adversarial climate and has made the Kenosha plant a better place to work. It's generated ideas and projects that will help us consistently supply our customers with a quality product on time."

Bruno Eisner summarized the success of Quality Circles:

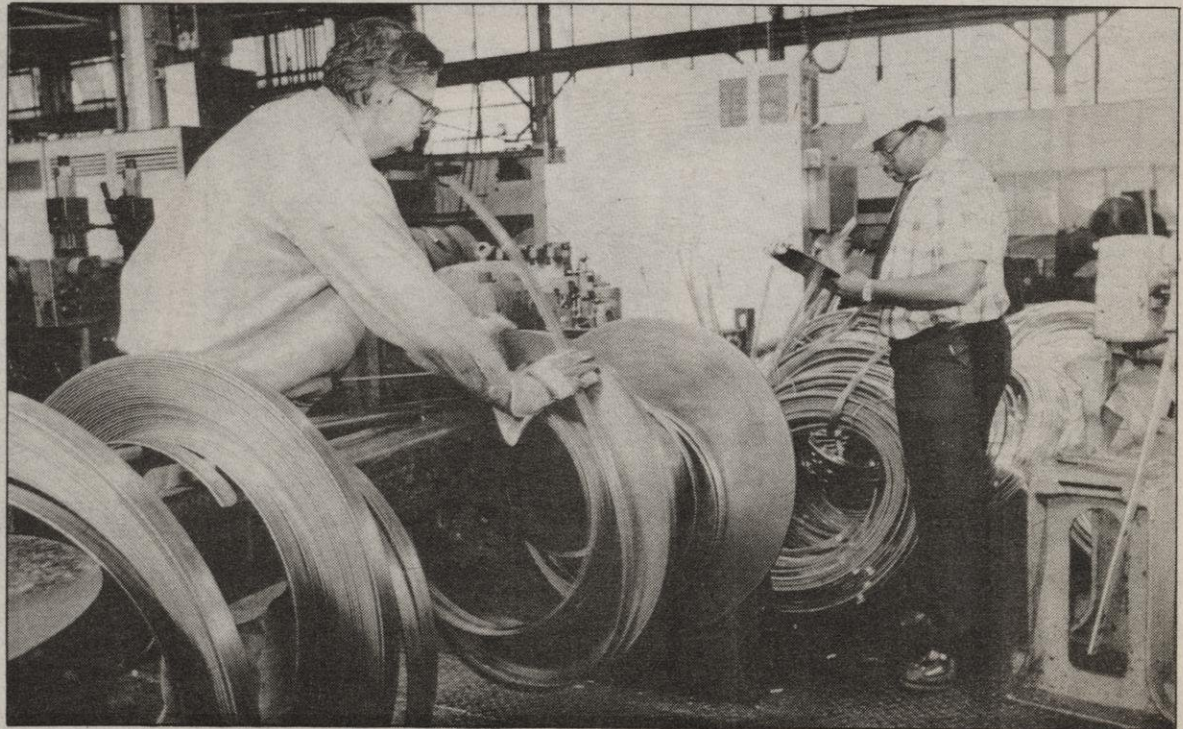
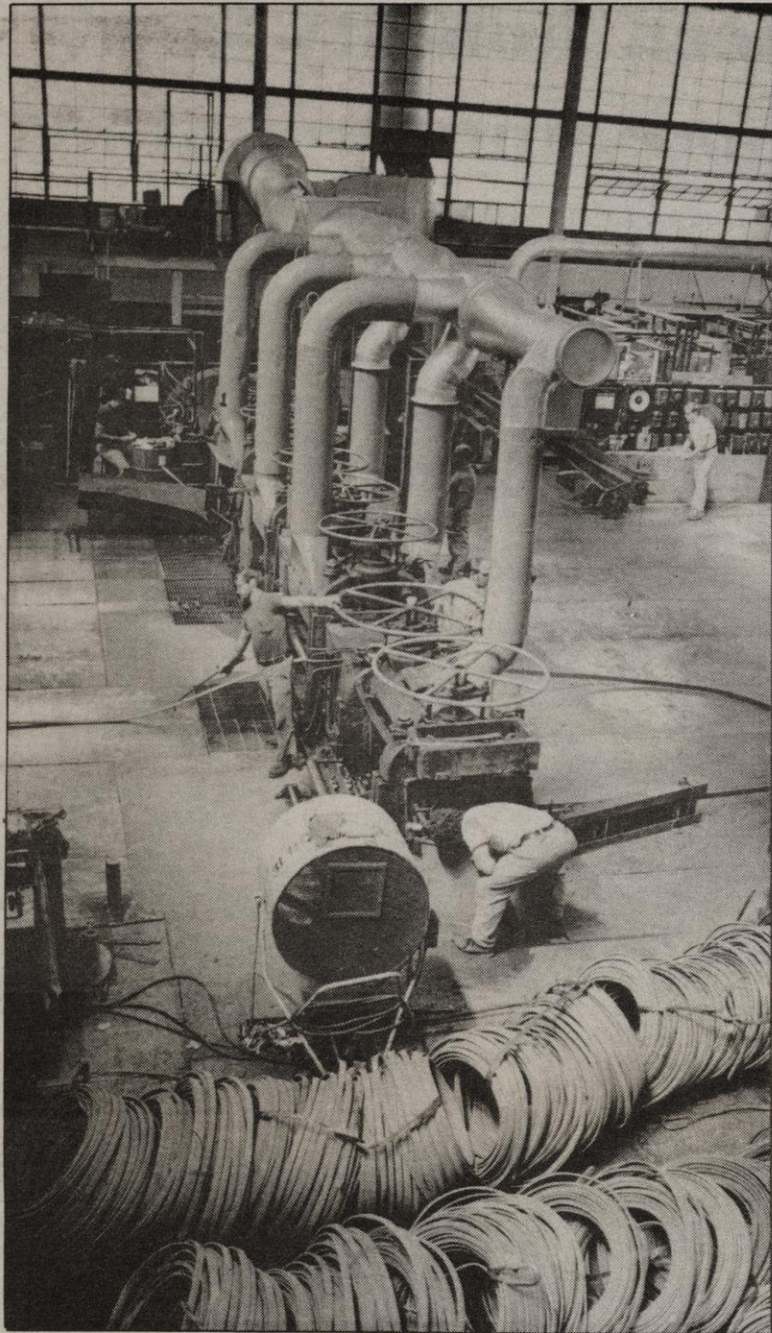
"Our participative management program was a key ingredient in the progress we've made in guaranteeing our future," he said. "Our new owners were not only positively impressed with our Quality Circle program, but they wanted it duplicated at our other locations. I guess we can say imitation is the sincerest form of flattery."



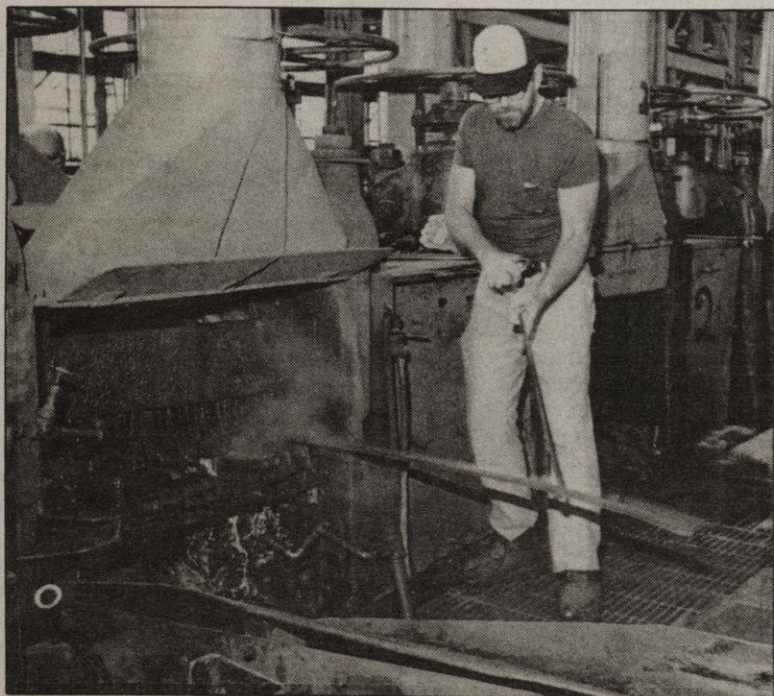
## Drawn copper

Depending upon the product, coils can be rolled under intense pressure with or without reheating. Much of the processing of strip material is handled in the drawn copper area east of 18th Avenue. In hot rolling machines, left, metal in coils is heated,

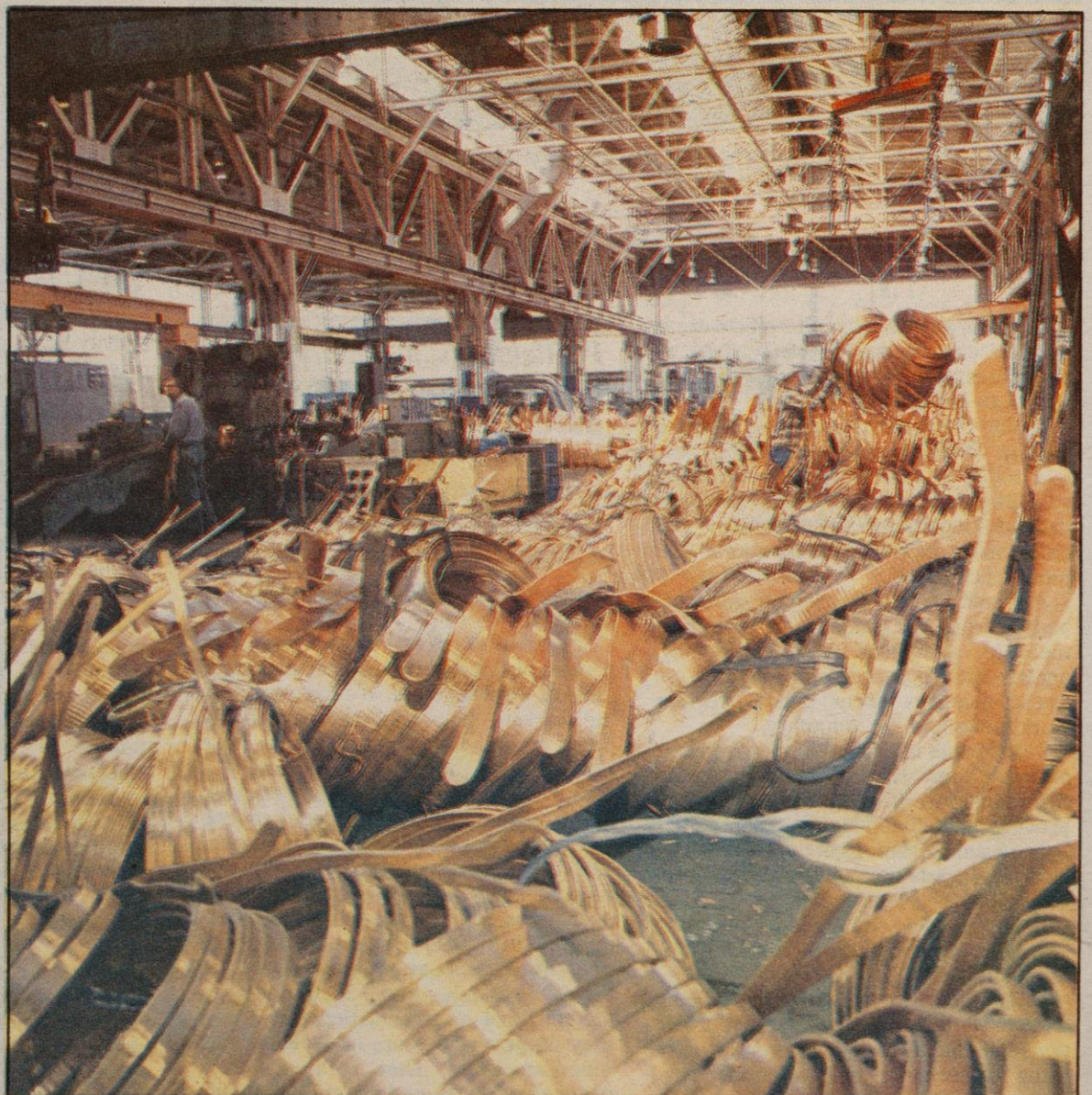
then drawn back and forth through a series of rollers, lower left, to make it round, rectangular or square. After this it is coiled and sent on for further processing. Rolling machinery skirts the large storage area, lower right, where coils are stored.



Industrial engineer Dennis McNeill, checks product ... 'roll sticker' Joseph Lawrence uncoils metal strips

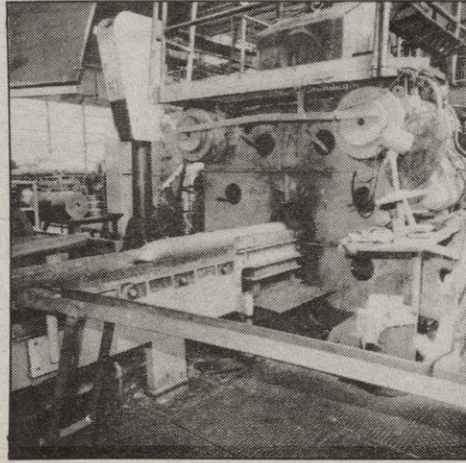
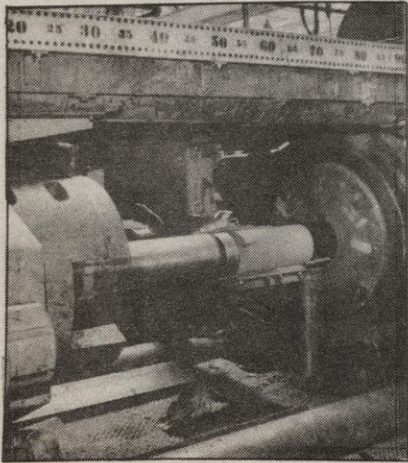
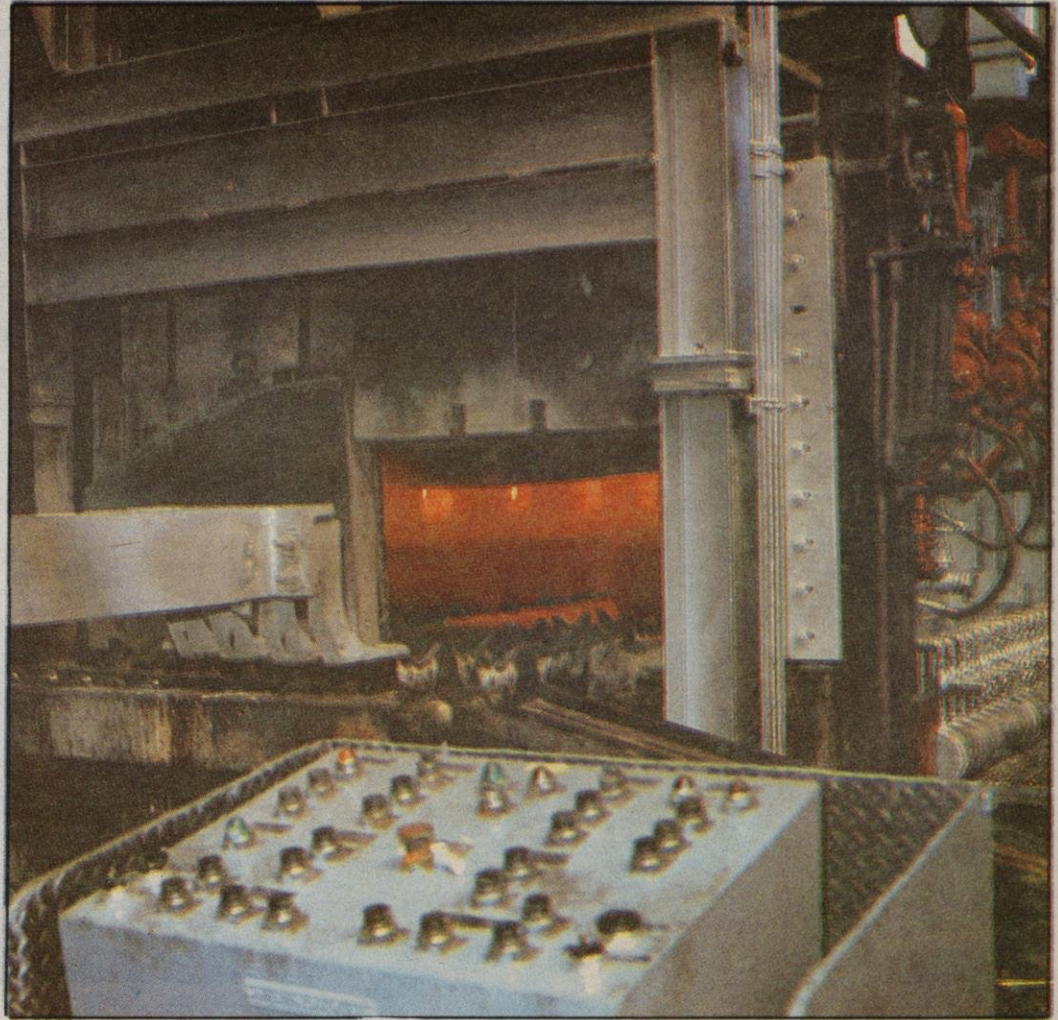
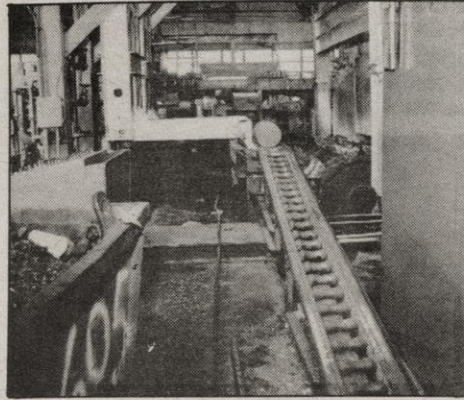


Roll rougher Norbert Kielpinski ... restarts metal into rolls



# Hydropress

Pressure of 3,000 tons can be developed in a special device called a hydropress. Bar stock, right, rolls into the furnace where it is heated to near-melting (red glow at far right), before a steel shaft pierces it, lower left, and pushes it through dies to make various shapes of starting stock for other departments.



## Plant manager

Nearly three-fourths of the 700-plus workers at American Brass' Kenosha plant are assigned to departments for which Plant Manager Jim Ackerman is responsible. Ackerman, who has held the position since 1979, oversees all production, engineering and metallurgy departments.



Barden



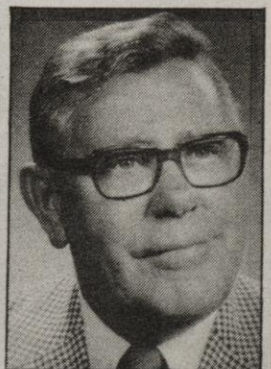
Cantwell



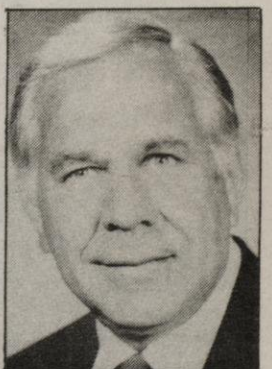
Pierce



Culver



Seavitt



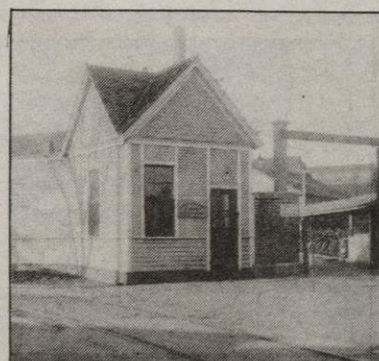
Eisner

## Men of mettle

Throughout its first 100 years, many men have played significant roles in shaping the American Brass. Among them were Richard H. Barden, vice president from 1936 to 1961; Jack Cantwell, plant manager (1959-1967); Earl Pierce, vice president (1961-1968); John Culver, administrative/financial manager (1959-1977); Francis Seavitt, plant manager (1971-1976); Bruno Eisner, vice president and general manager (1979-1985), and James Purviance, vice president and general manager (1986).



Purviance



*Now  
and then*

Perhaps the most noticeable feature to passersby is the entrance to American Brass at 14th Avenue and 63rd Street, where the guard and employment offices are currently located. In 1940, the plant entrance, seen from the same perspective, was narrower and a rack of workers' bicycles was evident inside the gate.



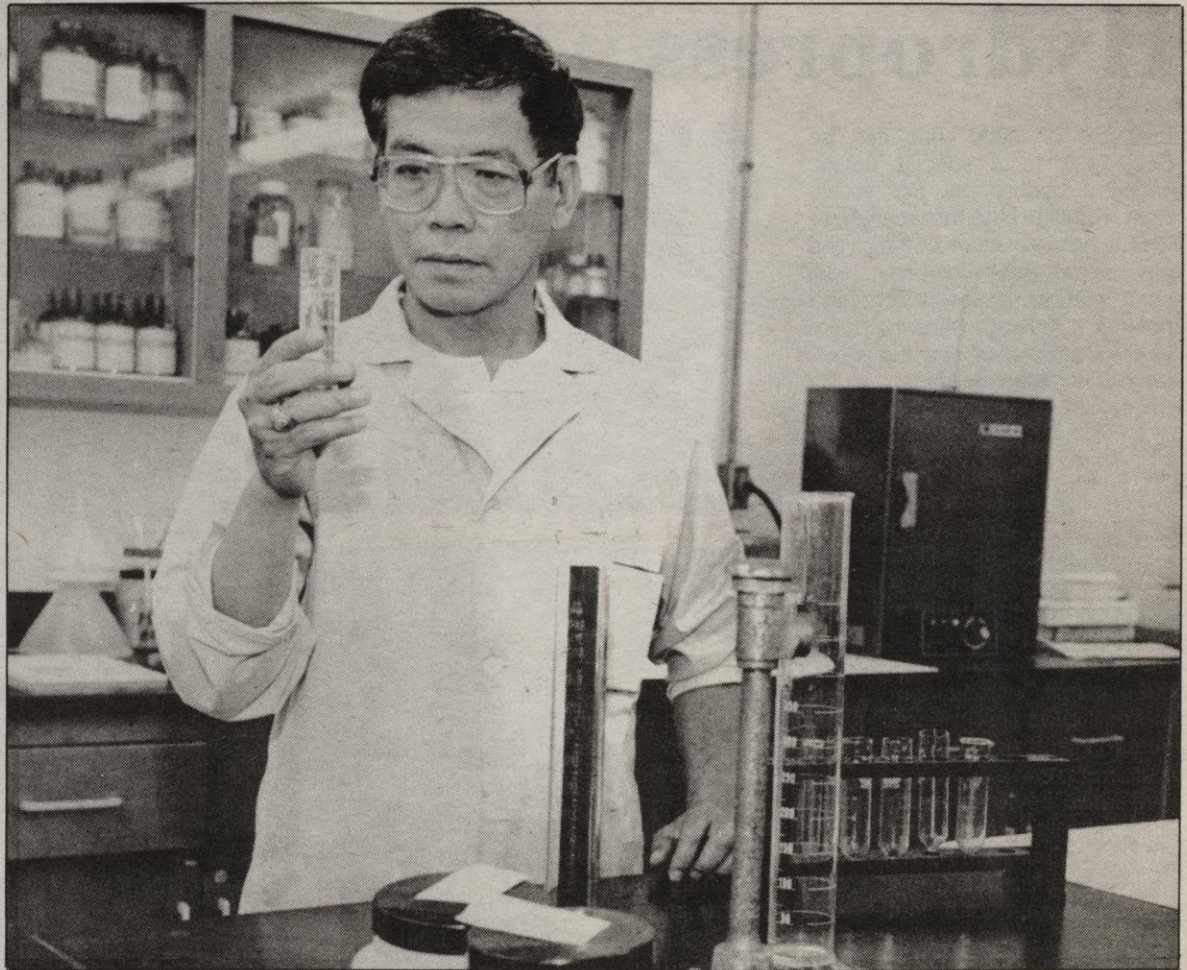
# Support services

While production is a significant part of business at American Brass, it is necessary to have support from a variety of areas from sales to security. The Kenosha staff includes a telemarketing staff to service customers and generate new sales

and uses for the factory's products. A medical department team offers first-line care for injuries or illnesses. Other departments assure quality control, provide business office, payroll and administrative services, or plant protection.



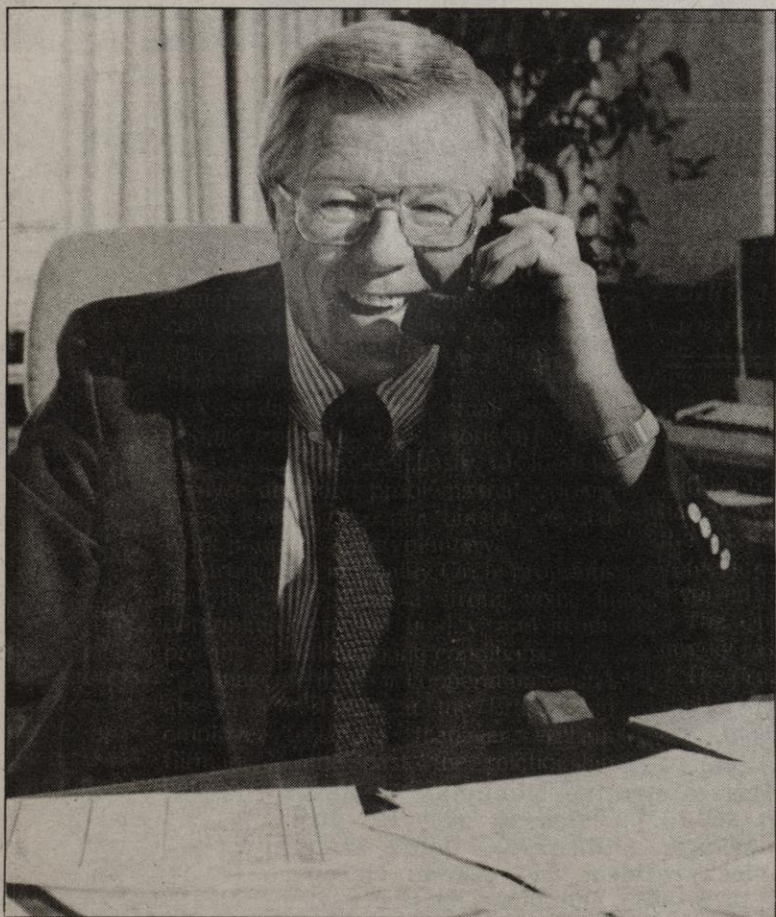
Joyce Marks, sales



Ceferino Paz, laboratory chemist



Felice Scozzaco, shipping



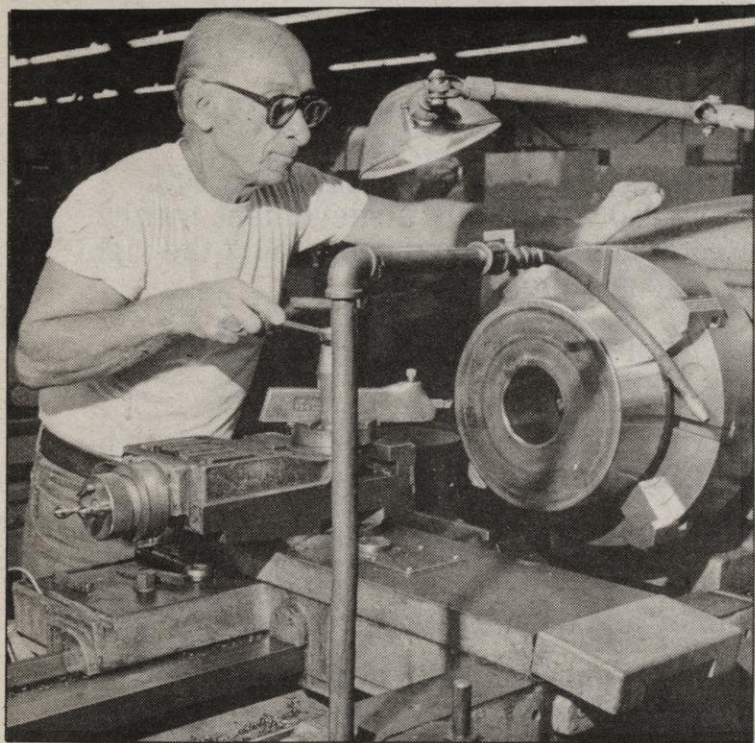
John Gallisdorfer, director of marketing



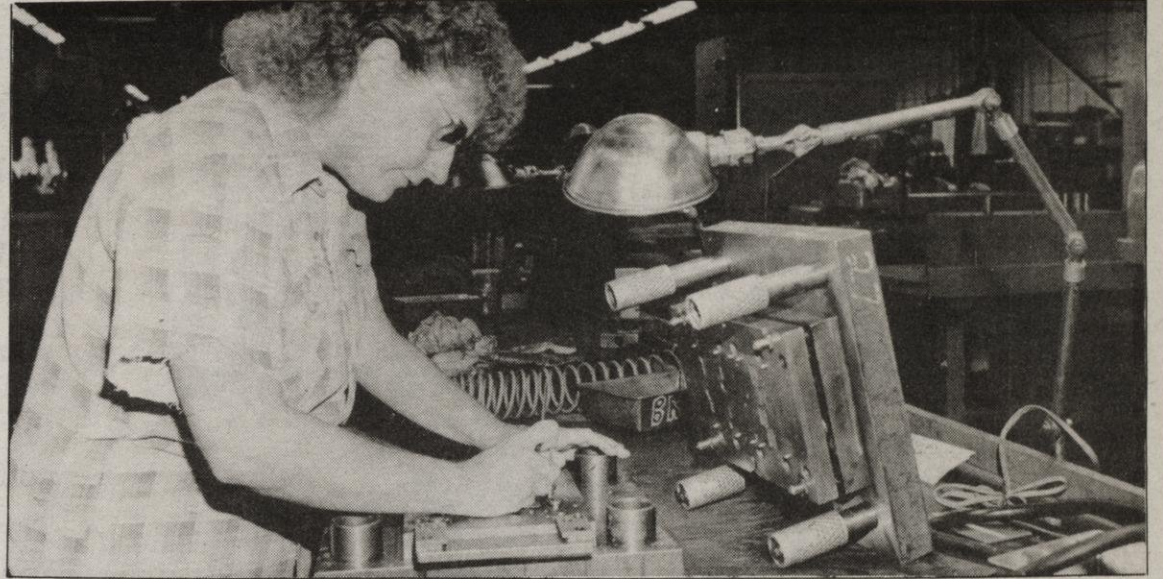
Jean Kosciuk, health



Kyle Trotter, security



Romano Portillia machines a tool for hydropress



Luann Sinnen, a tool and die maker, sharpens a Key Press die

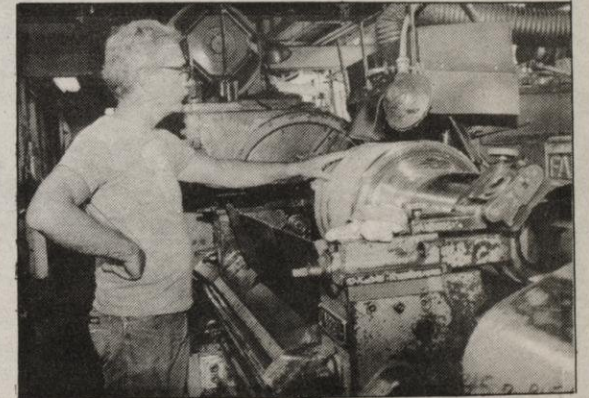
## Machine shop

Full-service departments within American Brass provide tools and dies necessary for production and maintain and repair equipment. The machine shop is equipped with

lathes, shapers, drill presses and welding equipment. The tool and die department also has grinders, milling machines and small heat treating furnaces to perform its tasks.



A.J. Kavalaszkas  
... calibrates a micrometer



Robert Tinnen  
... grinds rolls for sheet mill rollers

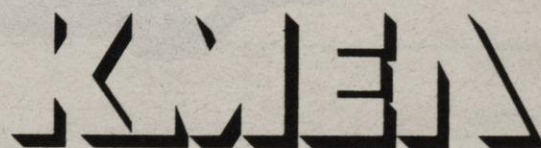
# *Congratulations*

## **AS AMERICAN BRASS**

*Best Wishes and Great Success  
for the next 100 years!*



Kenosha Area  
Chamber of Commerce, Inc.



Kenosha  
Manufacturers & Employees  
Association

812-56th Street  
Kenosha, Wisconsin





## To reach 100 years, a company must be doing the right thing

This year American Brass celebrates its 100th anniversary. To attain this achievement means that the company must have been doing the right thing for a long time.

What has enabled American Brass to reach the century mark?

We have found the people at American Brass to be competent, committed, concerned.

Their skills and products are recognized around the world.

The company and its employees respect each other.

The community involvements of the American Brass family are well known.

These are the ingredients of American Brass' success. We ought to know. We've worked with American Brass for more than 80 years.



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We are happy to have been a part of the progress and steady productivity the American Brass has maintained through the years.

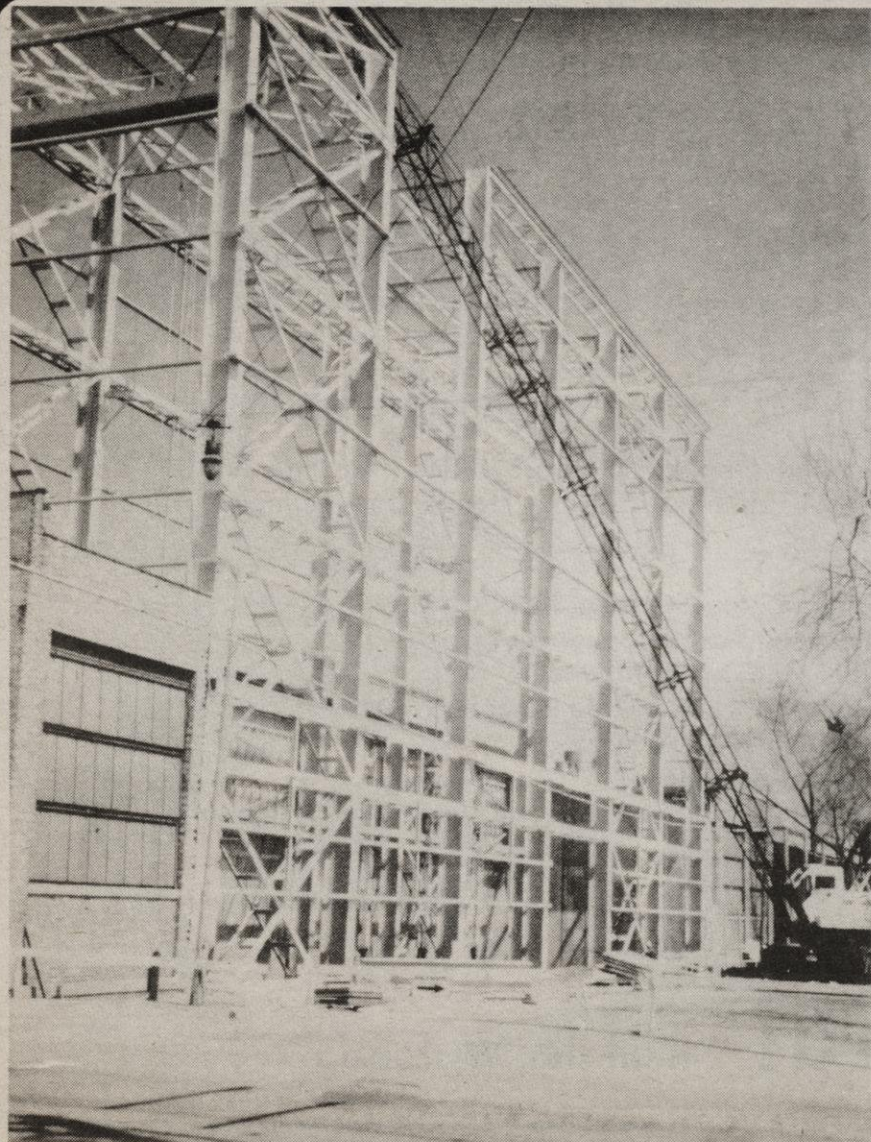
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## Some of our best work for American Brass is invisible

THE STEEL structure shown at the left surrounds, supports and protects the vertical strand anneal furnace at American Brass.

But it is invisible.

Of course many of our products can be seen at the Brass including furnaces, lift booms, gantry cranes and racks. In fact, the skills of our employees were involved in the construction of the recently expanded casting shop which used over 200 tons of steel.

Whether our handiwork can be seen is not the critical issue. What really matters is the concern and craftsmanship that comes from years of working and caring.

We like to believe that these are the qualities that have served American Brass for 100 years ... and Kenosha Boiler for 72.



**KENOSHA BOILER and  
STRUCTURAL COMPANY**

4117 13th Court • Kenosha, WI 53141

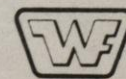
# CONGRATULATIONS

**AMERICAN BRASS**

On Your

# 100 YEAR ANNIVERSARY

Wisconsin Fuel & Heating, Inc.



- Burner Service
- Sheet Metal Shop
- Heating Equipment
- Air Conditioning
- Fuel Oil
- Motor Oils
- Diesel Fuel
- Industrial & Automotive Lubricants

Jobber



Products

DIAL 654-0241 — 552-9616

Office: 6329 - 28th Avenue  
Kenosha, Wisconsin 53140



# 45 Years Of Service As Your Sheet Metal And Industrial Ventilation Contractor

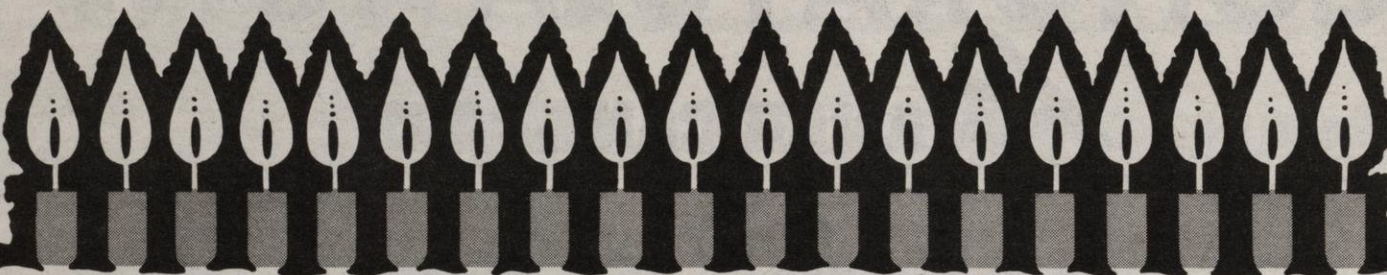


Furnished and Installed Smoke Exhaust Systems, Machine and Safety Guards, Roof Flashings, Exhaust Hoods and Complete Ventilation:

- 1941: New Rolling Mill and Casting Shop
- 1946: New Building for Drawn Copper Wire
- 1948: Renovation of Existing Tube Mill
- 1956: Addition of New Tube Mill Building
- 1960: Expansion of Casting Facility
- 1964: Strand Anneal Building
- 1984: Installation of New Rolling Mill and Ventilation System of Strip Cast

## John Zinane Sheet Metal Kenosha, Wisconsin

### **AS AMERICAN BRASS** . . . 100 years old



**We've been with them for over 40 candles.**

Since 1921 Magaw has been at American Brass renovating, remodeling and installing new equipment. During World War II it was the hot roll, today it's the strip cast machine. It has been over 40 good years.

# MAGAW

ELECTRIC CONSTRUCTION, INC.  
ELECTRICAL CONTRACTORS  
DIV. OF H & H GROUP, INC.

Offices 2940 Wisconsin Street, Sturtevant, WI

Phone 552-8550



# AMERICAN BRASS

A STANDARD OF EXCELLENCE FOR 100 YEARS

Congratulations from all your  
friends at . . .

JOHNSTON'S  
**TRUE VALUE  
HARDWARE**

36th Anniversary  
1950-1986

7519 Twenty Second Av 658-4936

*Happy Birthday*

**AMERICAN BRASS**

We're Proud To Have  
Worked With You Over  
The Years!

**Kenosha Lumber  
& Manufacturing Co.**

Manufacturers of Any Type Wooden Boxes-Wood Crates-  
Export Packaging-Pallets and Skids.

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**AMERICAN BRASS**

**Congratulations  
On Your First  
100 Years!**

**National Glove Sales**

300 Pine Street  
Prospect Heights, IL

**FOR MORE THAN  
A DECADE, WE'VE  
BEEN KEEPING A  
ROOF OVER  
AMERICAN BRASS . . .**

As one of the largest commercial and industrial reroofing specialists in the area, Carlson Racine Roofing, Inc., has been serving Southeastern Wisconsin since 1913.

We're proud to count American Brass as one of our valued customers and look forward to serving them in their second century of progress.

 **CARLSON  
RACINE  
ROOFING, INC.**

BUILT-IN ROOFS • COLD  
PROCESS ROOFING SYSTEMS  
SINGLE-PLY EPDM  
PVC ROOFING AND MODIFIED  
BITUMENS SYSTEMS  
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820 PEARL ST., RACINE



# **AS AMERICAN BRASS**

100 years of leadership and innovation in Kenosha.

Our best wishes to the Brass.

## **MID-STATES CONTROLS CORPORATION**

QUALITY CONTROL SYSTEMS FOR INDUSTRY

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# Feeding The



# **AMERICAN BRASS**

# For Nearly

# 20 Years

## **ARA Services Of Kenosha**

2409 52nd St.  
654-0291

# A Century of Productivity

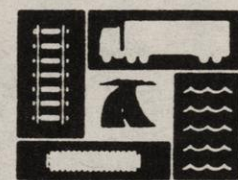
Our Best wishes  
to the  
American Brass

*J.M. Grimstad, Inc.*

*Specialists in Fluid Power*

1001 South 84th Street  
Phone 258-5200  
Milwaukee, WI

# Congratulations



**MultiTrans.**

800-345-1229

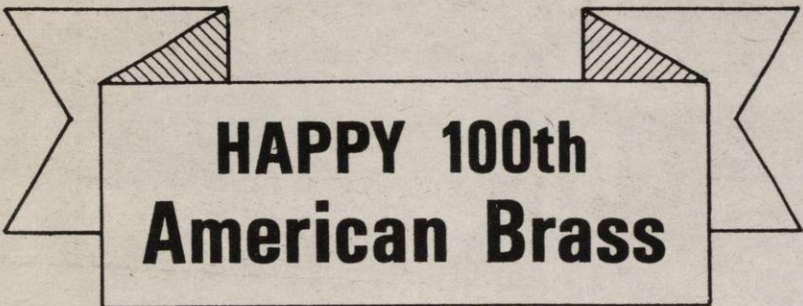
**RICH DAVIDSON**  
Agent

**DAVIDSON ENTERPRISES**



Buffalo, NY 716/679-7235

Kenosha, WI 414/652-3200



**HAPPY 100th  
American Brass**

**P·I·E Nationwide  
Salutes American Brass  
On The Occasion of Their 100th  
Anniversary.**



**P·I·E**  
NATIONWIDE

**P·I·E NATIONWIDE, INC.**  
1221 21st St., Racine, Wisconsin 53403  
(414) 552-9394  
Terminal Manager: Tom Harlow

# Congratulations



**AMERICAN BRASS**

Fire Brick Engineers Company, Inc., congratulates all of the people involved with the 100 successful years of operation.



**FIRE BRICK**  
ENGINEERS COMPANY, INC.

**(414) 383-6000**

2400 South 43rd Street, P.O. Box 19891,  
Milwaukee, WI 53219-0891

**Congratulations  
American Brass  
On Your  
Centennial  
Anniversary**

**BANE Inc. NELSON**

**INDUSTRIAL CONTRACTORS**  
4019-43rd Street • Kenosha

**Congratulations  
American Brass  
On Your First  
100 Years  
And Thank You For  
Allowing Us To Be A  
Part Of It**

*"Serving the Electrical Industry  
for over 65 Years"*



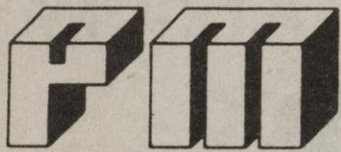
**Interstate Electric Supply Co.**

6500 27th Avenue • Kenosha, Wisconsin 53140 • 414-552-7011



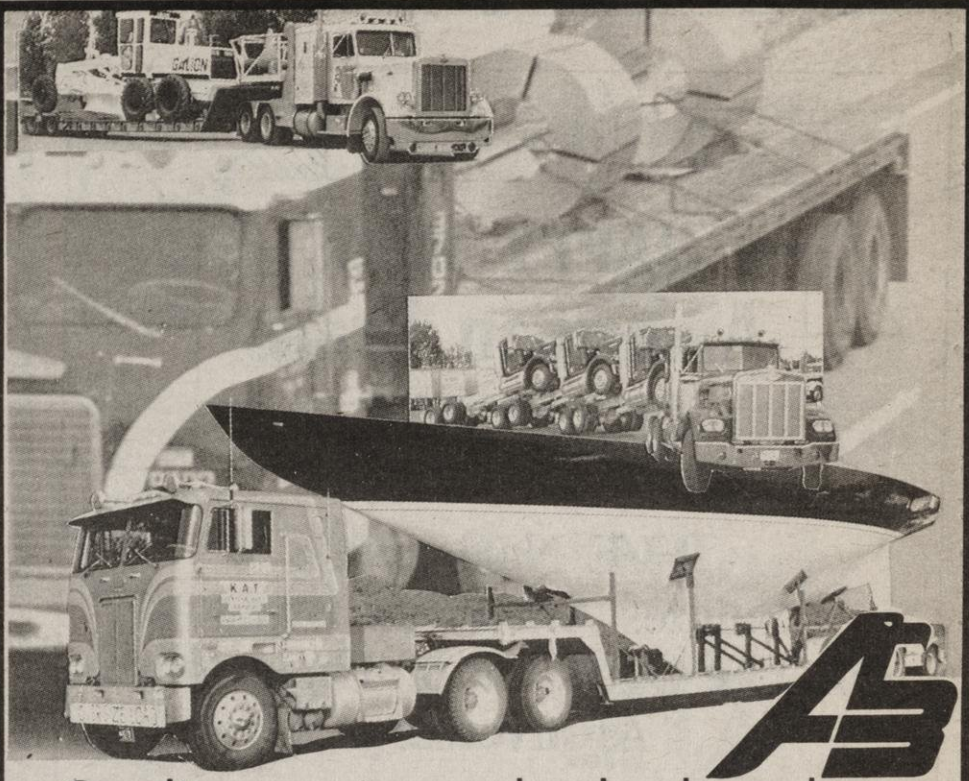
**A.P. JOHNSON INC.,**

general contractors since 1920, salutes the **AMERICAN BRASS** for its perseverance and outstanding performance: Working to make America stronger through technological innovation and quality products.



**PETERSEN MASONRY,**

specialists in refractories & industrial work, is proud to be a part of the **AMERICAN BRASS** success story. We recognize the achievements and contributions to America's defense. Working together we can make it another 100 years.



Quality, service and value have been the American Brass standard for 100 years . . . and ours for 55.

- Dallas and Mavis
- Kenosha Auto Transport
- Provincial American



**Jupiter Transportation Company Kenosha**

**We Salute the American Brass  
100th Anniversary**



**ARATEX SERVICES, Inc.**

- Industrial Uniforms, Towels and Washroom Supplies.

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MILWAUKEE, WISCONSIN 53207  
(414) 481-4144



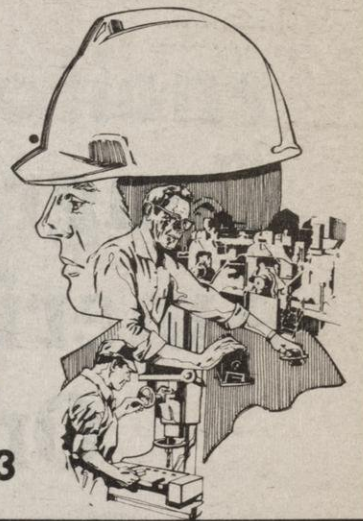
**Congratulations**

from

**KOCH PAPER & PACKING  
INC.**

3900-60th St.

658-2543



**Continued Success. . .  
AMERICAN BRASS**

Our Best Wishes To All Those  
Associated With This  
Outstanding Company!

**GLIDDEN PAINT**

5301-75th St.  
Phone 694-4750



**Happy 100th Anniversary to**

**AMERICAN BRASS**



from your neighbor of 40 years

**P. H. & I. SUPPLY CO.**

WHOLESALE  
PLUMBING, HEATING AND INDUSTRIAL  
SUPPLIES

6320-20th Avenue, Kenosha

657-3131



## American Brass and Kelsey have welded a fine relationship...

For 45 years our equipment and materials have assisted American Brass in developing a reputation for product excellence. We hope to expand and extend this relationship in the years ahead.

### Kelsey Welding Supply

Division of AGA Gas  
5120 68th Ave. . Kenosha, WI 53141



## Happy Anniversary!

from



### C & L Industrial Cleaners

"Locally Owned and Operated Since 1964"

A Rental Laundry Service

8927 Sheridan Rd.

694-0577

Proud to be a part of the

## American Brass 100 year Heritage

"Providing high quality, high precision machine work for a variety of industries in Southeastern Wisconsin and Northeastern Illinois"



**TOMCO** ACQUISITIONS, INC.

1303-35th St. - Kenosha, WI 53140 - 414/652-5888



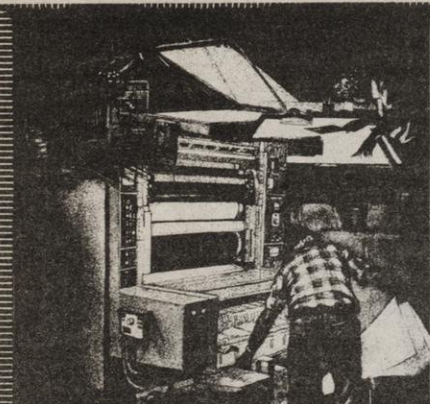
## Best Wishes On Your 100th Anniversary



### ALL TOOL SALES, INC.

854 WASHINGTON AVENUE • P.O. BOX 517 • RACINE, WISCONSIN 53401-0517

PHONES: Racine 414-637-7447 Milwaukee 342-1110  
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We Fill Your Printing Needs!

CONGRATULATIONS ON YOUR ANNIVERSARY

## Leitch Printing Corp.

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Kenosha

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At AMERICAN BRASS and at BECKER, INC. only people count...

The success of American Brass revolves around its 712 employees. This has been a tradition for 100 years.

We at Becker, Inc., have endeavored to maintain a similar tradition for 63 years. We are proud of our 26 employees and pleased to be a neighbor of American Brass.



## BECKER, Inc.

6705 14th Ave. . Kenosha, Wisconsin

Congratulations American Brass on your 100th Anniversary!

(And thank you for your continuing contribution to American industry!)



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## CONGRATULATIONS

On Your First 100 Years!

### MONARCH AUTO SUPPLY CO. OF KENOSHA, INC.

1216-59th Street

652-9160, 657-7170





*Congratulations on your  
One Hundredth  
Anniversary. We are  
proud to have assisted  
your company in  
making Kenosha a  
better place to work  
and live.*

• STATE CONSTRUCTION CORPORATION •

“A skilled work force, producing  
quality construction at a  
competitive price.”



GENERAL BUILDING CONTRACTORS

“Contracting Since 1945”