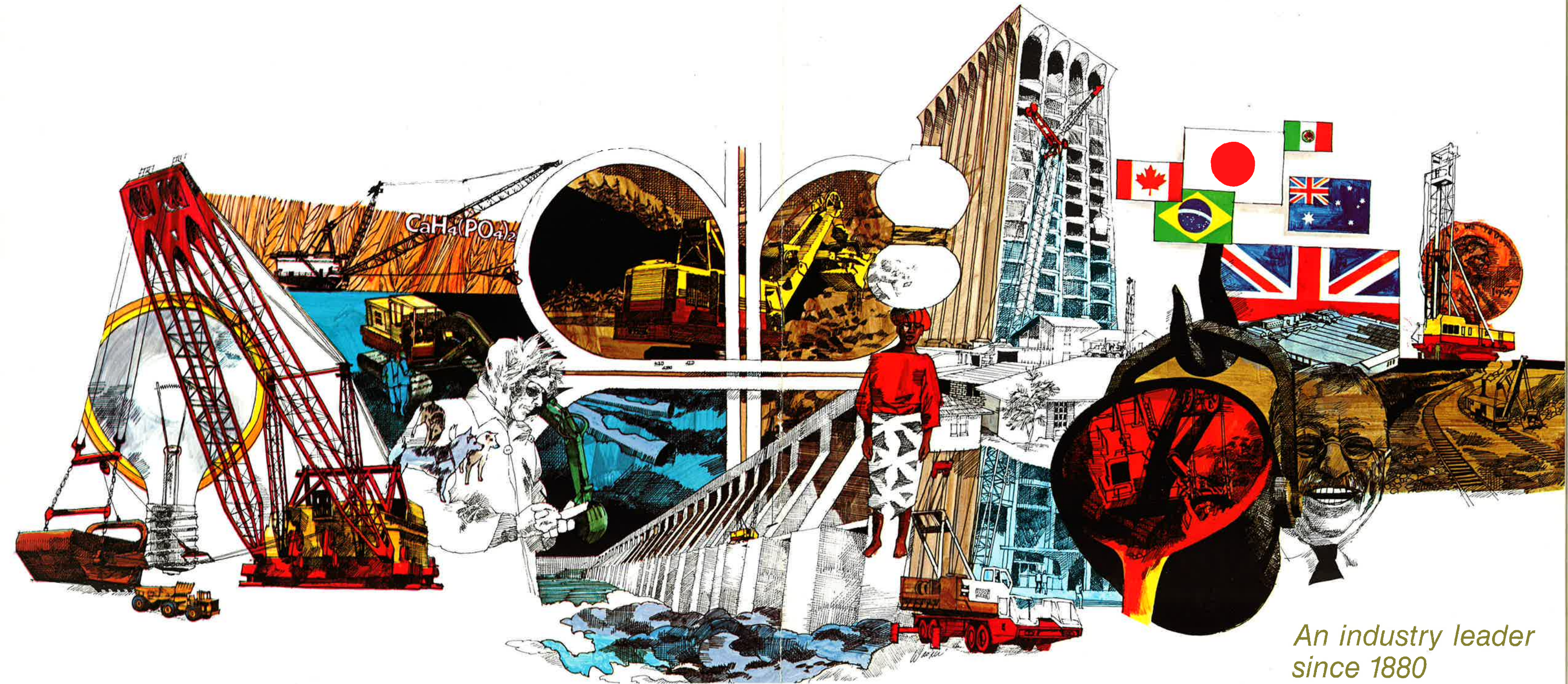




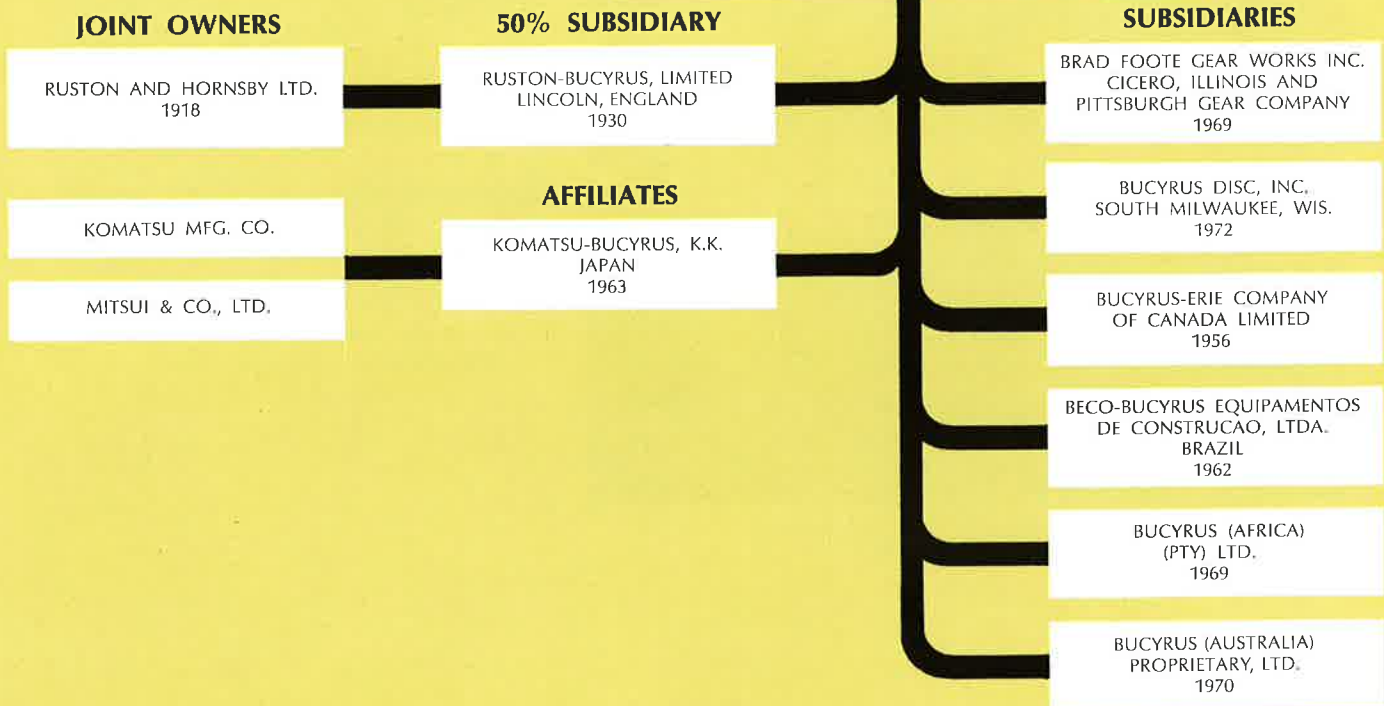
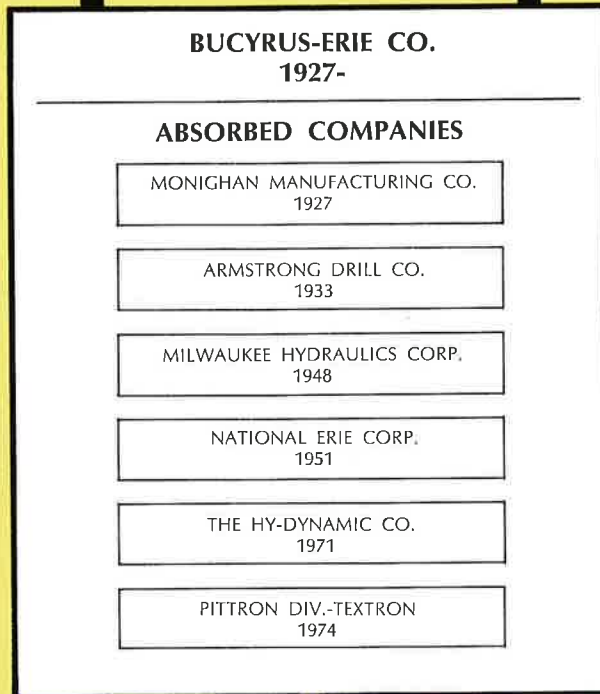
BUCYRUS-ERIE COMPANY • SOUTH MILWAUKEE, WISCONSIN 53172

# a brief history of BUCYRUS-ERIE COMPANY



*An industry leader  
since 1880*

# HISTORY / BUCYRUS-ERIE COMPANY



## EARLY YEARS

Daniel P. Eells was a typical representative of the group of energetic businessmen and *entrepreneurs* who were operating in the upper Middle West during the last half of the nineteenth century. He and a small group of relatives and business associates gathered in his Cleveland office on December 18, 1880 for the purpose of organizing a manufacturing company. The corporation they founded, under the name of Bucyrus Foundry and Manufacturing Company, was formed at Bucyrus, Ohio "to carry on the business of a foundry and of manufacturing machinery and railroad cars, etc." That company, established 90 years ago, is the ancestor of the present Bucyrus-Erie Company, one of the world's leading manufacturers of cranes, excavators and drills.

By 1889, Bucyrus was largely committed to the manufacture of excavators, and was able to boast in a company catalog, "We have by far the largest and best equipped shops in the country for the manufacture of steam shovels and dredges."

Between 1889 and 1894 the Company's geographic distribution was broadened by the addition of sales representatives and branch offices. By the end of the period, Bucyrus had branch offices in New York and Chicago and distributors in Denver, San Francisco, Houston and Boston.

As in earlier years, the bulk of Bucyrus' standard equipment was sold by the Company's part-time traveling representatives, among whom E. H. Hipple was outstanding. In many years Hipple made one-third to one-half of the Company's sales, and he was the recipient of the Company's first combination salary and commission plan.

As a result of heavy demands on the plant at Bucyrus, manufacturing operations were moved in 1893 to greatly improved production facilities in South Milwaukee, Wis. The Bucyrus, Ohio phase of the Company's history was closed when it was officially incorporated in Wisconsin on August 16 of that year, under the name of Bucyrus Steam Shovel and Dredge Company of Wisconsin.

In the latter part of 1893 the nation experienced an economic collapse, the Company's business suffered—especially from a shortage of capital—and by 1895 it was in receivership. Out of reorganization efforts came The Bucyrus Company, formed in 1896. Over 90 per cent of sales during the receivership period were derived from items that had been developed between 1889 and 1895; namely dredges, 40-ton and 50-ton shovels, and repair parts for these items. It was in the large, special-purpose excavating machines that Bucyrus management had made notable progress. This was the type of equipment that best suited the Bucyrus manufacturing, engineering, financial and management resources.

During the years 1902-1911, management of the new Company again achieved impressive operating and profit results, through an excellent reputation for performance, new manufacturing facilities and techniques, and improved marketing methods. Much of the spadework for Bucyrus-Erie's present position as an industry leader was laid during this first decade of the twentieth century, when Bucyrus was a principal participant in major excavating projects of the period. During that time, the Company built placer dredges for the California gold fields; shovels for the vast Mesabi Iron Ranges; dredges for enlargement of the New York State Barge Canal—the largest earth-moving project in the U.S. between 1902-1912—and machines in large numbers for one of the most exciting construction projects in the history of man—the digging of the Panama Canal.

## B-E SHOVELS ON THE PANAMA CANAL

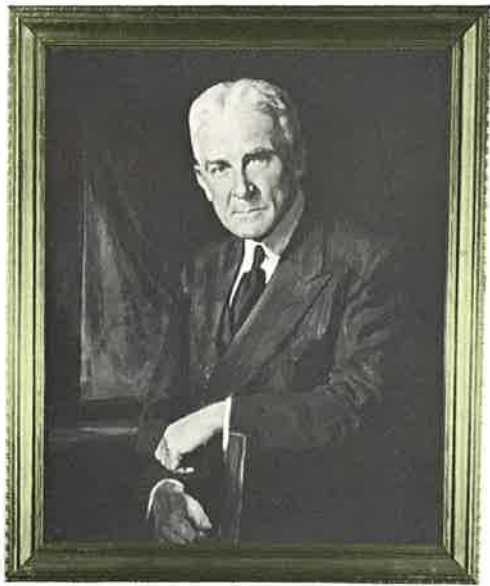
The 77 shovels delivered by Bucyrus to the Isthmian Canal Commission represented the lion's share of shovels used for the Panama Canal's construction. They also constituted about one-third of the total number of large shovels sold by the Company between 1904-1907. The significance of such sales was of great importance to Bucyrus. The size and certainty of the orders stimulated plant expansion, and enabled management to familiarize itself with the economics of production in relatively large machine lots.

Bucyrus became a publicly-owned company in 1911, with the formation of Bucyrus Company. This new Wisconsin corporation acquired the property, assets and business, and "good will" of three companies: The Bucyrus Company, Bucyrus-Vulcan Company, and the Vulcan Steam Shovel Company. Among the assets acquired was the yet-to-be constructed Evansville, Ind. plant of the Bucyrus-Vulcan Company. This plant, which today totals 516,000 square feet, now manufactures Bucyrus-Erie construction machinery including hydraulic cranes, oil and water-well drills, and crawler-mounted shovels.

By 1925 Bucyrus had been guided into first place in the industry. Its growth appeared to have a firm base in



An early photo of the South Milwaukee plant, taken in 1893 following the Company's move from Bucyrus, Ohio.



William Wheeler Coleman . . . painted in 1936 on the occasion of his 25th anniversary as president of the Company.

customer preference for Bucyrus products. The members of the management team, especially William W. Coleman, a skillful, exacting and highly competent chief executive, were in firm control of the corporation's policies. As officers and directors of an operationally successful firm, the oldest and largest of its kind in the United States, if not in the world, their income, prestige, and economic power had been considerably enhanced. In summation, Bucyrus Company was well-established in its field, was adequately financed, and was guided by a management of proven capability.



Theodore Roosevelt climbed aboard a Bucyrus 95-ton shovel on a 1908 inspection trip of the Panama Canal. This has become one of the Company's most widely published pictures.

## BUCYRUS MERGES WITH ERIE STEAM SHOVEL

Bucyrus Company merged with the country's foremost manufacturer of small excavators, the Erie Steam Shovel Company, in 1927. This company could trace its corporate ancestry back to 1883, almost as far as the Bucyrus organization. It was founded in March of that year when F. H. Ball and W. H. Nicholson formed the Ball Engine Company for the purpose of manufacturing steam engines at Erie, Pa.

For more than a decade prior to the merger of the two companies, it had been the Erie Steam Shovel Company's boast that "...no single shovel is ever built in our plant. ERIES are put through the factory in lots, with all parts made to jigs and templates, and parts are absolutely interchangeable. This not only insures better workmanship, but cuts the labor cost so that we are enabled to put several hundred dollars more of the raw materials into the ERIE shovel and still keep down the price."



Aerial view of the Erie, Pa. plant, which manufactures Bucyrus-Erie construction machinery products.

The best general description given of the advantages expected from the consolidation of Bucyrus and Erie was given in the application for listing of the stock of the new company on the New York Exchange, which stated: "The purpose of Plan is to bring together under one management manufacturing plants, the products of which naturally supplement one another in the field of excavating machinery, by establishing a company handling power shovels, and other machinery for excavating and handling materials, of a number of sizes with the ability to sell these products with increased economy and efficiency, especially in foreign markets."

The resulting corporation, Bucyrus-Erie Company, provided for the interchange of engineering information, the mutual use of valuable patents, and an effecting of econ-

omies in operation. In addition, the new Company was able to offer to the trade a complete line of small and large shovels and two well-organized sales departments.

The organizational structure of the new Company was developed along the Bucyrus pattern rather than the informal Erie model. Within a year the heads of all departments were located at South Milwaukee, as were all administrative personnel except the Evansville and Erie plant managers and their rather limited staffs. Manufacturing was clearly divided along the foregoing lines, which have persisted nearly unchanged to the present day. Erie and Evansville produced the small equipment and South Milwaukee the large machines.

Bucyrus-Erie acquired controlling interest in Monighan Manufacturing Company, well-known for its unique product, the walking dragline, in 1931. The following year B-E acquired exclusive manufacturing rights to Armstrong churn-type drills to become a leader in water-well and blast-hole drill markets.

It is interesting to note that Bucyrus-Erie's long-standing policy of diversifying its excavator products was greatly accelerated in the midst of the Great Depression. Most important of the items added between 1931 and 1939 were walking draglines, drills, and tractor equipment. By 1939, total annual shipments of these machines had risen to approximately 50 per cent of the Company's older lines, and each had made a positive contribution to earnings in every year since its inception. Moreover, sales of all three had exhibited a promising growth, and future prospects for each were bright indeed. There is little doubt that the decisions leading to adding these products were among the most significant of the Company's entire history.

## RUSTON-BUCYRUS, LIMITED FORMED

Bucyrus-Erie joined with Ruston & Hornsby, Ltd., the oldest company and the best-known name in the British excavating-machinery industry, to organize Ruston-Bucyrus, Limited in 1930. The new company was formed in England for the purpose of specializing in the manufacture and sale of excavating machinery. It was to take over the entire excavator business of Ruston & Hornsby, Ltd., and all the business carried on by Bucyrus-Erie Company in certain parts of the world. Each parent company named four directors to Ruston-Bucyrus Limited, and William W. Coleman became chairman of the board. R-B is now Bucyrus-Erie's largest subsidiary, and ranks as one of the largest manufacturers of excavators and cranes in Europe.



The Ruston-Bucyrus plant, totaling more than 2,780,000 square feet, is located in Lincoln, England. It manufactures nearly the entire line of B-E designed construction equipment, and mining equipment up to 12 cubic yard capacity.



Bucyrus-Erie developed the 240 mm. howitzer, which contributed greatly to a number of European campaigns, during World War II. These two guns had just fired their last rounds to celebrate the cease fire of May 8, 1945.

## WORLD WAR II

A greatly expanded demand for excavators that began with the outbreak of World War II in Europe dominated the history of Bucyrus-Erie from 1940 through 1945. Virtually the entire output of the Company from 1942 to 1945 was devoted to the war. Taken as a whole, the

Bucyrus-Erie war effort had these components: expansion of its regular line for civilian purchases; production of its regular lines for the Government; and the design and production of special ordnance equipment — chiefly gun carriages.

Following the war, the Company initiated a \$2 million expansion program which increased plant capacity approximately 20 per cent between 1948 and 1951. Bucyrus-Erie augmented its capacity for producing contractor-size cranes and excavators in 1951 by purchasing 97.6 per cent of National Erie Corp., a large steel foundry employing about 450 men. Three years earlier, the patents and assets of Milwaukee Hydraulics Corp., a leading producer of all-hydraulic truck cranes, had been purchased. This added the highly successful Hydrocrane, "an amazingly simple, useful and well-liked piece of equipment" to the Bucyrus-Erie product line.



Aerial view of Komatsu Manufacturing Company plant near Osaka, Japan, where Komatsu-Bucyrus machines are manufactured.

In order to benefit from the growing overseas market potentials for Bucyrus-Erie machinery, steps were taken in 1963 to establish manufacturing joint-ventures in Japan and Brazil in conjunction with local partners. Licensing arrangements have also been made in Australia and several other countries for production of certain types of machinery.

Brad Foote Gear Works, Inc., located in Cicero, Ill., and its subsidiary, Pittsburgh Gear Company, Pittsburgh, Pa., were acquired by the Bucyrus-Erie Company in May, 1969. Brad Foote is one of the country's leading manufacturers of gears and precision engineered gear drives. The plants, occupying 153,000 square feet, serve leading corporations



An industry-preferred DYNABOEH® at work.

in the construction, mining, oil field, machine tool, paper machinery and steel industries.

The Hy-Dynamic Co., a subsidiary acquired by Bucyrus-Erie in August, 1971, was absorbed into the parent company and began operating as a division at Erie, Pa. in August, 1973. The division's product line consists of 6 models of DYNABOEH® machines — integral backhoe/loaders. DYNABOEH machines are the number one preference in America over all similar competitive machines, according to an independent survey of construction equipment purchasers/owners.

## RECENT EXPANSION

Bucyrus-Erie Company is presently undergoing the greatest expansion in its history, due in large part to the world-wide energy crisis.

This crisis, precipitated by the oil embargo of Oct., 1973, dramatically alerted the U.S. and other countries of the free world to their over-dependency on imported petroleum. It forced them to re-evaluate their domestic energy resources, the great preponderance of which in the U.S. is coal.

The resultant demand for surface mining machinery produced an unprecedented order influx for the Company, leading to backlogs of more than \$700 million. To meet these extraordinary demands, the Company in February, 1974 purchased a 1,400,000 sq. ft. facility in Pocatello, Idaho. This 168 acre complex, originally built during World War II as a naval ordnance facility, will enable greatly increased production of the B-E line of mining machinery. It is also advantageously located to serve expanding mining operations in the West.

Pocatello's major buildings are ideal for the type of manufacturing operations employed, with long, high, wide bays and high-capacity overhead cranes. First shipments were made from the Pocatello plant in July, 1974. Employment is expected to reach 2,000-3,000 in the next few years.

In September, 1974 the Company announced purchase of a 193,000 sq. ft. plant in Racine. This facility was purchased to provide a new, centrally located distribution center for mining machinery parts, as well as improved permanent quarters for the construction machinery division of the engineering department.

This move provides more efficient stocking, processing and shipment of a greatly increased volume of parts business. It also released much needed space at the South Milwaukee plant for expanded production. A center for the training of welders and machinists will also occupy a part of the Racine plant.

Late in October, 1974, the Company announced the purchase of a 550,000 sq. ft. steel foundry and machining plant in Glassport, Pa. This plant will increase the Company's supplies of castings while continuing to supply commercial customers.

With two open hearths and one electric furnace, the plant has made casting pours up to 160 tons. To meet quality requirements, a wide range of control and testing techniques are employed, including Betatron, X-ray, ultrasonic-magnaflux and layout examinations.

Augmenting the foundry capabilities are companion machining operations, capable of finishing very large castings to meet end use requirements.

The Glassport plant brings to the Company increased steel casting capabilities with a wide range of facilities and skills to augment those of the South Milwaukee foundry.

## BUCYRUS-ERIE TODAY

Bucyrus-Erie Company ranks today as one of the world's leading manufacturers of mining and construction machinery. Its product line is well positioned to take advantage of the increased requirements projected for major segments of these markets.

Large B-E excavators and blast hole drills are used in surface mining of coal, phosphate, iron and copper, as well as for other minerals.

Hydraulic and mechanical excavators are used to dig trenches for sewer and water lines and for petroleum and gas pipelines.

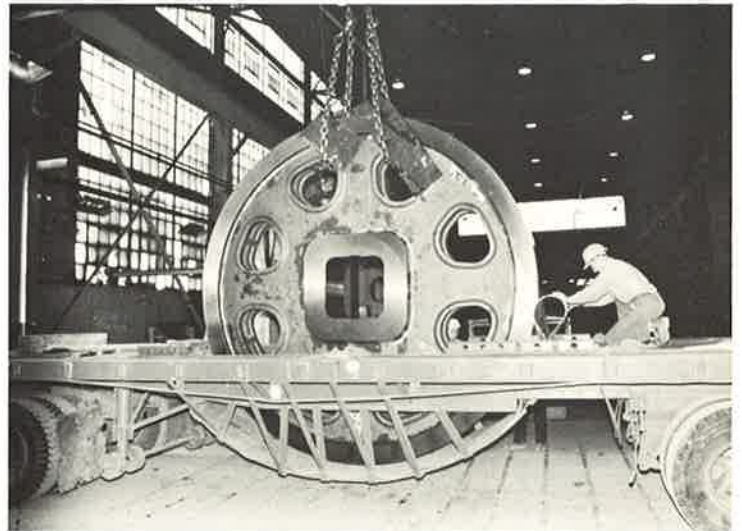
A broad line of B-E mobile cranes, both self-propelled and crawler-mounted, fills requirements for erection of power plants, dams, bridges and mass transit systems. These excavators and cranes, of course, are also widely used in all other types of commercial and residential construction.



B-E's new Pocatello plant features 1,400,000 sq. ft. under roof.



Wide bays enable sub-assembly of the largest dragline components.



The Glassport plant brings increased steel casting capabilities to the Company.



B-E marine cranes have found broad acceptance in offshore drilling theatres.

To serve offshore drillers for oil and natural gas, a new line of specially designed marine cranes is used for drillships, drilling and production platforms, and semi-submersible drill rigs and for other marine and harbor uses.

Research and development efforts continue to add new products and improve established product lines. Bucyrus-Erie, Ruston-Bucyrus and Komatsu-Bucyrus engineering departments collaborate to design and build "Bucyrus" construction machinery that will satisfy the diverse construction machinery requirements abroad as well as domestically.

Bucyrus-Erie mining machinery is widely used for surface mining of coal, as well as in the mining of copper, iron and phosphate. The Company has an international network of mining machinery Parts Depots, bringing off-the-shelf service to mine operators in 16 major mining regions in Canada, the United States, and Australia.

B-E has a stable, well-financed international distributor organization consisting of 106 independently owned distributors active in 130 countries. The Company has its own international sales representatives to assist these distributors.

New office building at Company headquarters in South Milwaukee, Wis.



Eugene P. Berg, president and chairman of Bucyrus-Erie Company.

Bucyrus-Erie is guided by an experienced, progressive management team, led by its president and chairman, Eugene P. Berg. Berg, an engineering graduate of Purdue University, holds a master's degree in business administration from the University of Chicago. He came to B-E in 1960 as executive vice president, bringing with him 23 years of manufacturing experience. Mr. Berg was named president of the Company in December 1962, and chairman of the board in August, 1963.

Present officers of the Company, in addition to Mr. Berg, are Norris K. Ekstrom, vice president and treasurer and a director of the Company; Howard Freyensee, vice president-sales; John A. Thierry, vice president, secretary and general attorney, and a director of the Company; William B. Winter, vice president and managing director, Ruston-Bucyrus, Limited; and Roger J. Palmer, controller. It is this team which has led Bucyrus-Erie to its position as one of the world's largest manufacturers of construction and mining equipment, ranking with the foremost capital goods manufacturers in the United States.







The basement of the present Conrad Hilton Hotel on Chicago's Michigan Avenue was excavated with these Bucyrus 20-B and 30-B steam shovels. Photo was taken about 1925.



A considerably more recent product is this modern 40-C Freedom Crane, introduced in 1974.



This fully-revolving Erie-B steam shovel was developed in 1914 by the Ball Engine Company, predecessor to the Erie Steam Shovel Company.



This 350-H is the first in a new line of B-E hydraulic excavators.



This giant \$20 million walking dragline, built by Bucyrus-Erie, is the largest in the world, with a bucket capacity of 220 cubic yards.



This early Bucyrus railroad shovel, carrying a 1¼ cubic yard dipper, was built in 1882.