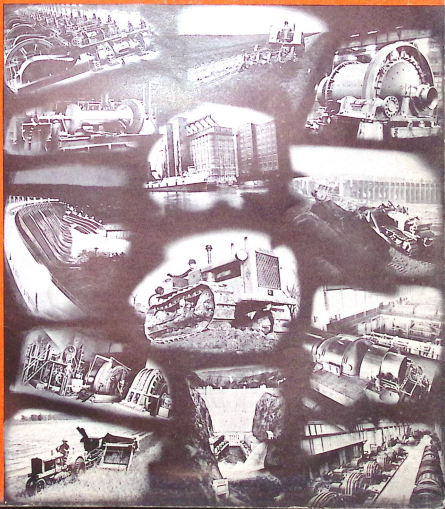


FACTS

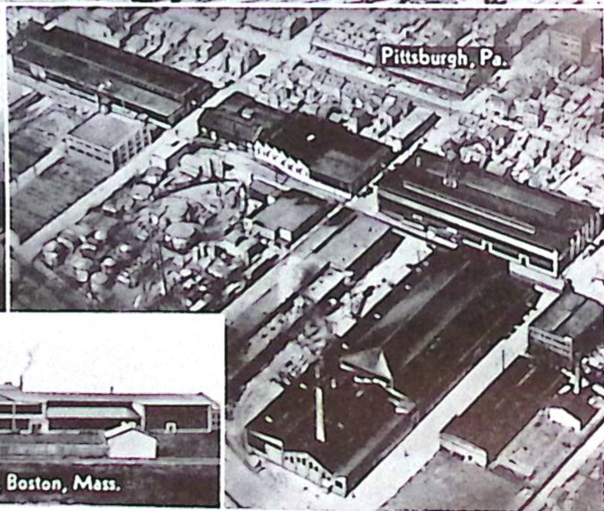
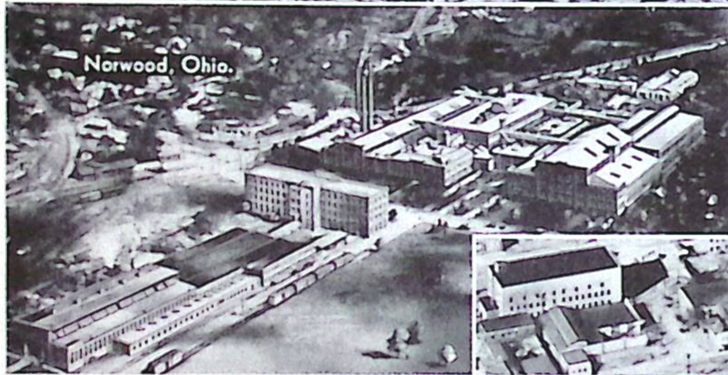
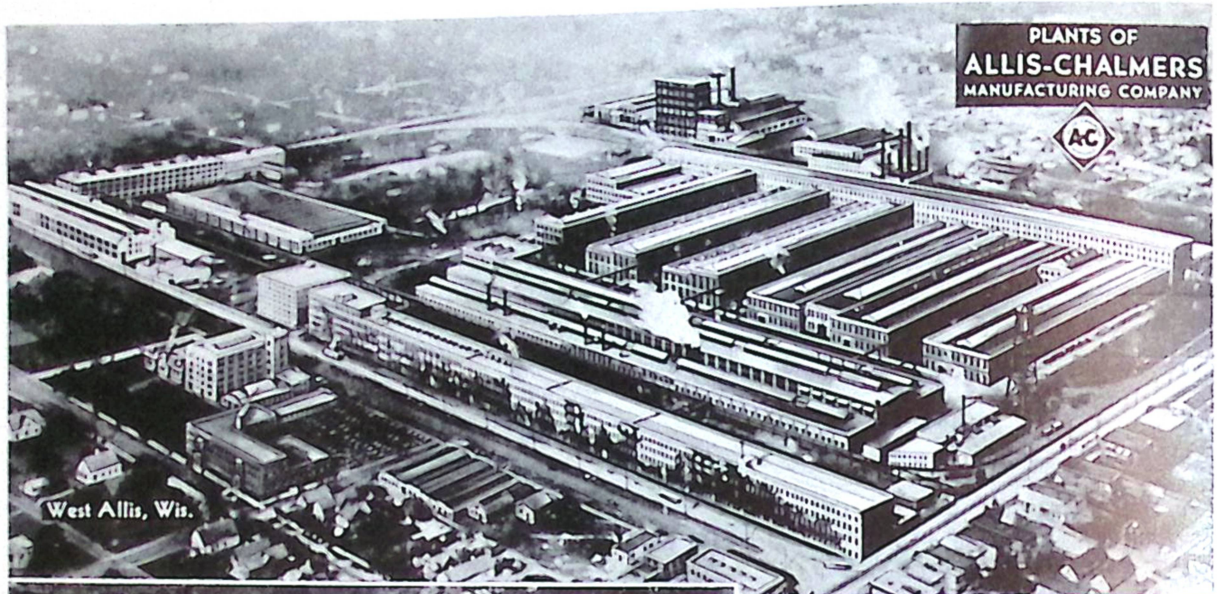
company



Vol. 1

No. 6

The PLANTS and . . .



... The PRODUCTS

Blowers, Compressors and Vacuum Pumps

Centrifugal and Rotary
Reciprocating

Boiler Treatment

Cement Machinery

Crushers (See Crushing Machinery)
Elevators, Conveyors, Feeders
Dust Collectors (Bag Filter Type)
Grinding Mills (Compeb, Preliminary, Ball, Ball-Peb and Tube)
Grinding Media
Pulverized Coal Plants
Rotary Kilns, Coolers and Dryers
Air Quenching Coolers
Slurry Agitators
Wash Mills for Clay
Complete Cement Making Plants
Complete Lime Plants

Coal Distillation Equipment

Condensers, Steam

Jet and Surface

Crushing Machinery

Crushers, (Gyratory, Jaw, and Fairmount Single Roll)
Crushing Rolls
Elevators, Conveyors, Feeders, and Bin Gates
Hoists (See Hoisting Machinery)
Mobile Crushers and Auxiliaries
Pulverators (Hammer Type Impact Crushers)
Screens (Revolving and Vibrating)
Scrubbers and Washers
Sizers (Multi-roll)
Complete Crushing Plants
Complete Sand and Gravel, Washed Stone, Agricultural Limestone, Oyster Shell, and other Comparable Plants

Electrical Machinery

Condensers (Synchronous)
Converters (Synchronous)
Generators (Alternating and Direct Current), Belted, Direct-connected, Engine Type, Waterwheel, Turbo)
Motor-Generator Sets
Motors (Induction, Synchronous, Direct Current) of any size for any application
Rectifiers (Mercury Arc Power)
Regulators, Voltage (Generator and Feeder)
Switchgear
Armored Switchgear (Metal-clad)
Circuit Breakers
Switchboards and Control
Electric and Diesel Electric Traction Equipment for Main Line and Switching Locomotives; also for High Speed Motor Car, for Subway, Elevated and Suburban Service
Train Lighting Equipment

Transformers

Distribution and Network
Instrument and Metering
Power

Engines

Steam, Gas, and Oil
Blowing (See Blowers and Compressors)
Rolling Mill

Farm Machinery

Tillage Tools
Harvesters, Threshers, Combines and Hullers
Tractors (See Tractors)

Forgings

Flour Mill Machinery

Bolting Machinery
Sifters, Reels, Purifiers, Dusters, Dressers, Aspirators, Cloth Dryers and Coolers (Meal)
Elevators (Men and Materials), Conveyors, Feeders, Bins, Dust Collectors
Experimental Reduction Machines
Malt Cleaners and Crushers
Mills (Roller, Buhr, Attrition, Flaking, Corn and Feed)
Packers
Rolls (Corrugated and Ground)
Complete Flour and Feed Mills
Malt and Distillery Milling, Soy Bean, Fuller's Earth, Chemical, and other Comparable Plants

Hoisting Machinery

Cages, Platforms and Buckets
Hoists (Electric, Friction, and Steam)
Sheaves
Skips

Metallurgical Machinery

Casting Machines
Classifiers
Copper Converters
Crushers (See Crushing Machinery)
Elevators, Conveyors, Feeders
Furnaces (Roasting, and Non-ferrous Smelting and Refining)
Jigs (Hancock, Harz and Woodbury)
Ladles, Pots, and Slag Cars
Grinding Mills (Rod, Ball, Ball-peb, Ball Granulator, Pebble and Tube)
Grinding Media
Sampling Machinery
Skull Breakers
Stamp Mills
Complete Concentration Plants
Complete Ore Washing Plants
Complete Flotation, Cyanide, and Treatment Plants
Complete Roasting, Smelting, Refining, and Converting Plants

Plate Work

Perforated Metals
Rolling, Flanging, and Welding
Tanks

Power Transmission Machinery

Boxes, Hangers, and Floor Stands
Clutches, Couplings, Pulleys, Gears, Sheaves, and Frictions
Shafting
Texrope Multiple V-Belt Drives
Texrope V-Belts

Pumps

Axial Flow
Centrifugal (Acid, Boiler Feed Fire, General Service, Mine, Municipal, Air Conditioning, Oil, Pulp, and Sewage)
Reciprocating (High Pressure, Mine, Municipal, Oil)

Road Machinery

Blade Graders, Hand and Power
Controlled
Speed Patrols
(Motor Graders) Single and Tandem Drive
Tractors (See Tractors)
Hauling Units

Saw Mill Machinery

Band and Circular Mills, Resaws
Carriages and Feeds
Conveyors and Transfers
Defiberizers
Edgers
Lath Mills and Bolters
Log Haul and Deck Machinery
Log Turners, Niggers, and Canters
Lumber Transfer Cars
Setworks
Trimmers, Slashers, and Cut-off Saws

Timber Preserving Machinery

Tractors

Track-Type (Industrial, Logging, Oil Field, Road Construction, Farm)
Wheel Type (Farm and Industrial)
Power Units
Industrial Engines

Tunnel Shovels

Turbines, Steam

Condensing Type (High Pressure, Automatic Extraction, Mixed Pressure)
Non-condensing Type (High or Low Back Pressure Automatic Extraction, Auxiliary Drive Impulse Wheels)
Turbo-Generator Units (above types)

Turbines, Hydraulic

Francis, Impulse and Propeller Types; also Governors, Pressure Regulators, Valves, Roller and Stoney Gates, and Trash Racks
Hydro-electric Units (above types)

The PIONEER

90 Years of Service to American Industry

Ninety years ago a pioneer from the East came to the youthful city of Milwaukee, on the shores of Lake Michigan. With a vision of the great grain fields that in the future would occupy the broad lands to the west, and of the flour mills that necessarily would follow, he was seeking a location for the manufacture of mill stones. Here a partnership was formed and in the following year, 1847, a small plant was established.

Perhaps he could see Milwaukee in the distant future as a thriving industrial city, but he could scarcely have realized that in less than a century his own small enterprise would become a major part of one of the largest industrial institutions of the country. From this beginning, in the small shop making millstones, can be directly traced one of the organizations and many of the products which have made the name Allis-Chalmers famous throughout the engineering world.

The Spirit of the Pioneer has carried on through the intervening years. New products have been introduced to meet the needs of the home and the community, to improve living conditions and to provide greater conveniences. New processes and better equipment have been provided for industry to save drudgery, and that industry and users alike might benefit by lower costs. Improved economies and higher efficiencies have resulted in conserving natural resources such as water power, coal, oil, metals, etc.

During these years consolidations have taken place. Four companies, with similar interests but varied products that supplemented each other, united to render a broader and more complete service to the industries they served.

Electricity, which has so completely revolu-

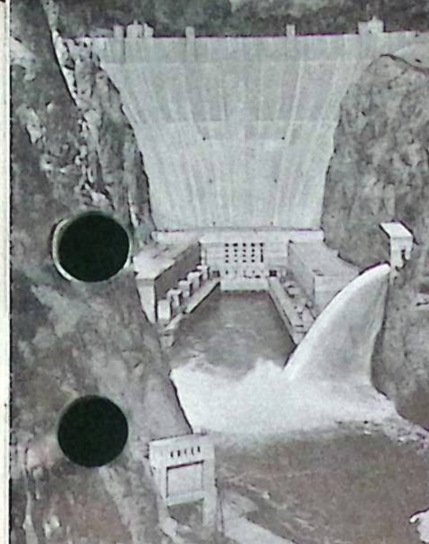
tionized industry and modernized the home, brought other companies into the Allis-Chalmers group, adding electrical equipment for light and power as well as motor drives for its many mechanical products. The needs of agriculture, crying for relief from its back-breaking toil, brought in still other groups to render essential service.

These organizations, almost without exception, were pioneers in their industries, while in each, the spirit of service has been an outstanding factor.

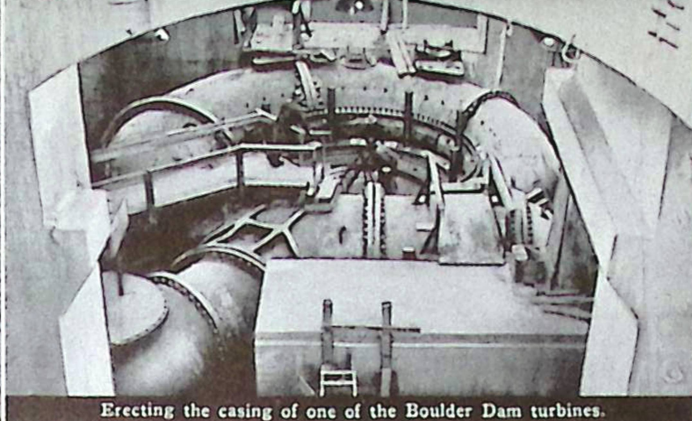
Just a glance at a few of the numerous products made by Allis-Chalmers will show that the Company is outstanding in the manufacture of power, electrical, industrial and agricultural machinery. It occupies the unique position of building such a variety of equipment that there is hardly an industry to which it does not render a substantial service.

It has taken many decades of vision, leadership and service to establish such an organization that so successfully brings into fruition all the talents of the engineer, the inventor and the mechanic. Throughout the years the Company's desire to furnish the most suitable and complete equipment has persisted. Under the direction of hundreds of engineers and executives, who are specialists in their respective fields, the Allis-Chalmers Manufacturing Company is in splendid position to serve the vast needs of industry. This progressive policy has continued to bring about better manufacturing facilities, testing equipment and research laboratories.

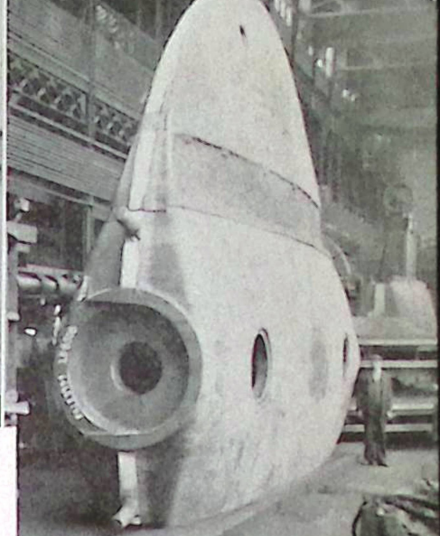
Some of the achievements of Allis-Chalmers and its predecessor organizations are related in the following pages and in all of them the Spirit of the Pioneer has carried on.



Boulder Dam for which Allis-Chalmers built and installed the worlds largest hydraulic turbines, 115,000 H. P. each.



Erecting the casing of one of the Boulder Dam turbines.



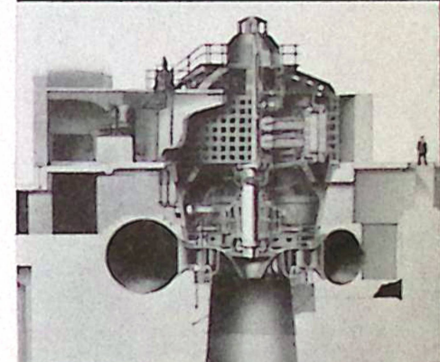
The largest butterfly valve ever built, 27 feet in diameter, one of four for the Conowingo turbines.

Hydraulic Turbines

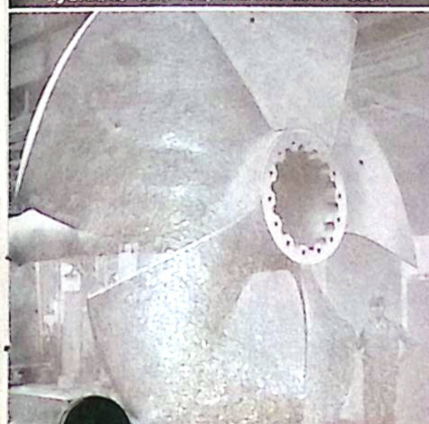
As far back as 1865, the Company was making water wheels for various purposes. With the turn of the century the country became water power conscious because of the great forward strides in electricity and the Company began to develop newer designs of more efficient water wheels to meet the ever-increasing demand for bigger and better power machinery. The Company has followed the policy of building each hydraulic turbine to suit its own particular application, and for this reason, soon began to dominate the field of large hydro-electric units.

Allis-Chalmers water turbines now in operation in this country and abroad exceed a total of six million horsepower, ranging from the smallest size and capacity of five horsepower to the largest in the world, the great turbines at Boulder Dam, each capable of developing 150,000 horsepower and discharging enough water daily to take care of the consumption of a city containing two and a quarter million people.

Allis-Chalmers turbines have been transported by airplanes, railroad, steamers, and trucks. They have been carried by mules in pieces of only 300 pounds into remote mining camps otherwise not accessible, some of which are located more than 10,000 feet above sea level. By reason of building both hydraulic and electrical equipment, the Company can offer apparatus for complete hydro-electric installation, insuring to the purchaser undivided responsibility, and is the only Company in the world building all three types of hydraulic turbines — Francis, propeller, and impulse.



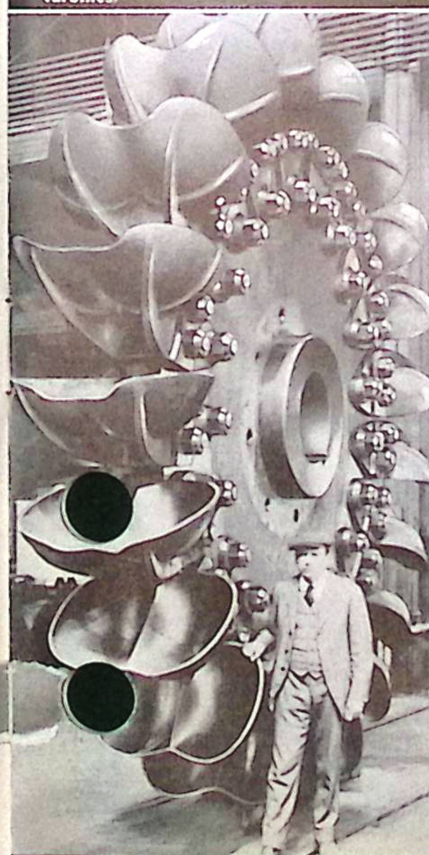
A cross section through one of the turbines and generators built by Allis-Chalmers and installed at Niagara Falls.



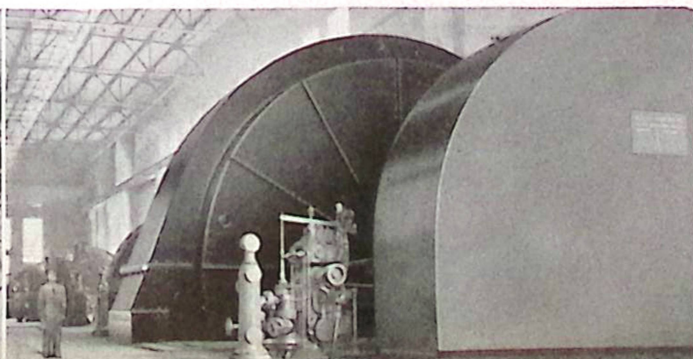
One of eight Cast Steel Propeller type High Speed Turbine Runners, each 180 inches in diameter weighing 40,000 lbs. for Louisville Hydro-Electric Co. turbines.



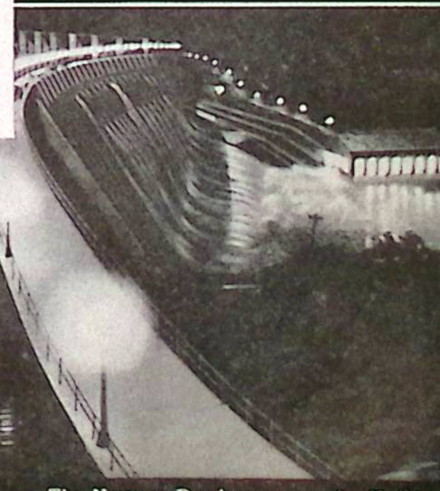
This cast steel runner from one of the Niagara Falls turbines weighs 100,000 pounds.



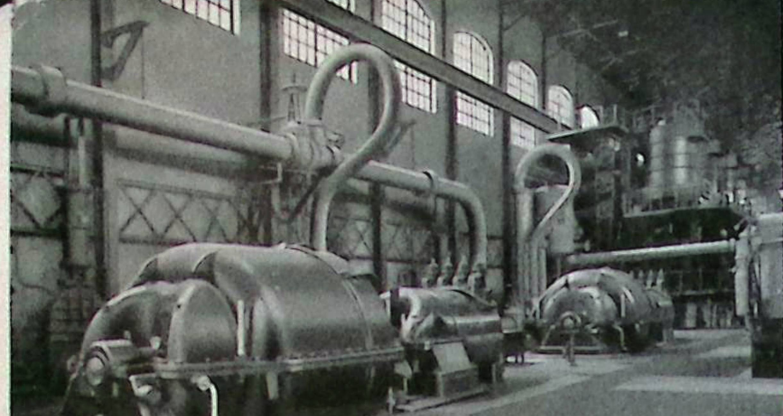
Impulse Wheel of one of the 30,000 H. P. units for the Great Western Power Company.



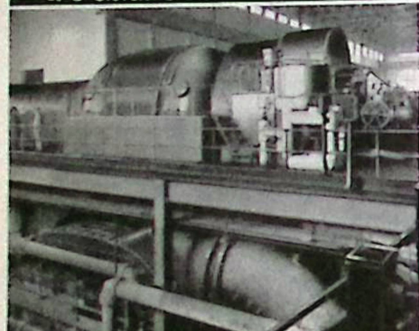
The San Francisco Powerhouse, Los Angeles, where in 1928 Allis-Chalmers installed the largest impulse turbines in the world



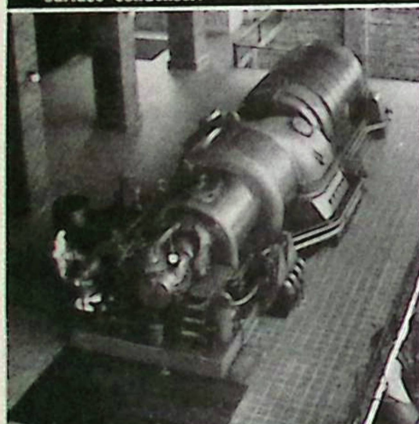
The Narrows Development on the Yadkin River, N. C. where four A-C 31,000 H. P. turbines furnish power for the Tallassee Power Co.



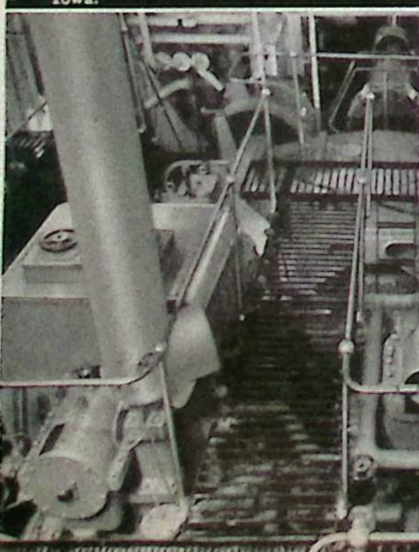
These two big Turbine Driven Turbo Blowers each supply 70,000 cubic feet of air per minute to the blast furnaces of a Cleveland Steel mill.



A 115,000 KW Steam Turbo Generator installation, also showing the large A-C surface condenser.



This A-C Turbine Alternator unit running at 1800 R.P.M. generates power for the Riverside Power Mfg. Co. in Iowa.



A 3,000 Shiphorsepower Cross Compound Steam Turbine unit installed in the oil tanker S. S. "R. P. Resor."

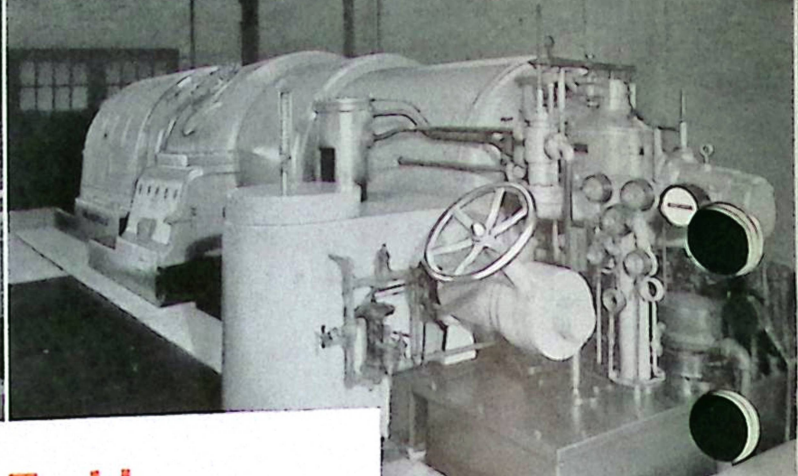
Steam Turbines

The Allis-Chalmers Manufacturing Company early realized the possibilities of steam turbines, and started to build them in the year 1904. During the subsequent thirty years, it has built a total capacity of about 3,500,000 kilowatts, or 4,690,000 horsepower (1 kilowatt = 1.34 horsepower).

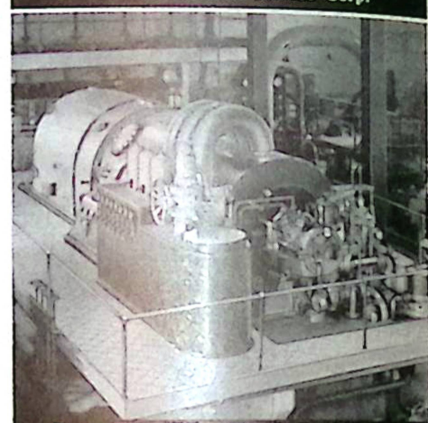
Year by year sizes and steam pressures have increased until units of 125,000 k. w. have been designed and in some installations, pressures over 1200 lbs. are used. Recently it has widened the field for the application of steam turbines to include the driving of centrifugal pumps and turbo blowers, and building of propelling units for oil tankers. The Company makes steam turbines of all types, condensing, non-condensing, automatic-extraction, and mixed pressure, suitable for all commercial operating conditions.

One of the last words in modern turbo-generator designs is the tandem compound unit recently installed in the Port Washington Plant of the Milwaukee Electric Company. This unit is rated at 80,000 k. w. with steam turbine capacity of 135,000 horsepower. Due to its design and high efficiency, this plant has been referred to as America's Premier Station.

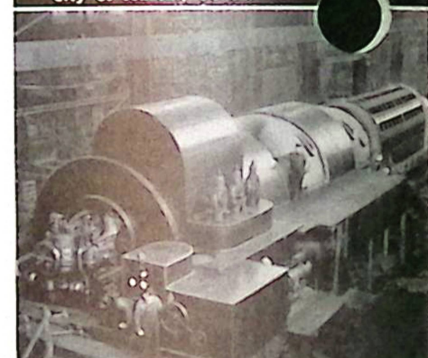
For producing power by steam as well as by water, the Company's great diversity of products and their plan of undivided responsibility makes it possible for Allis-Chalmers to design, build and place in operation the complete power plant including turbines, generators, condensers, pumps and all auxiliary equipment.



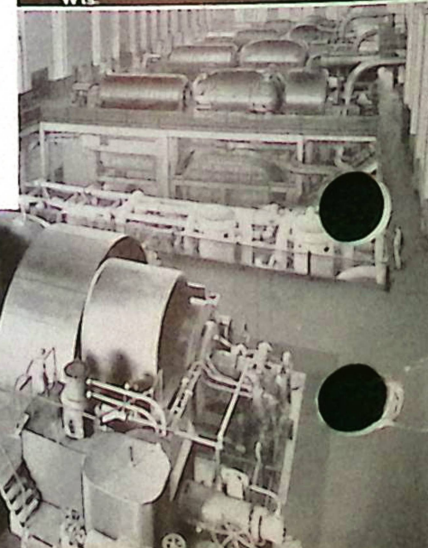
A 6000 KW, 3600 R. P. M. Steam Turbine and Generator unit installed for Minnesota Public Service Corp.



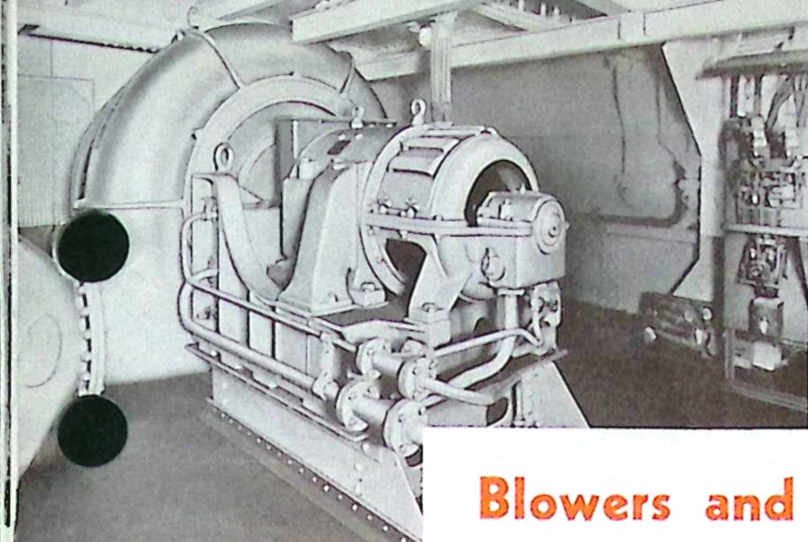
This 7500 KW 3600 R. P. M. High Pressure Condensing Steam Turbine and Alternator produces power for the city of Austin, Texas.



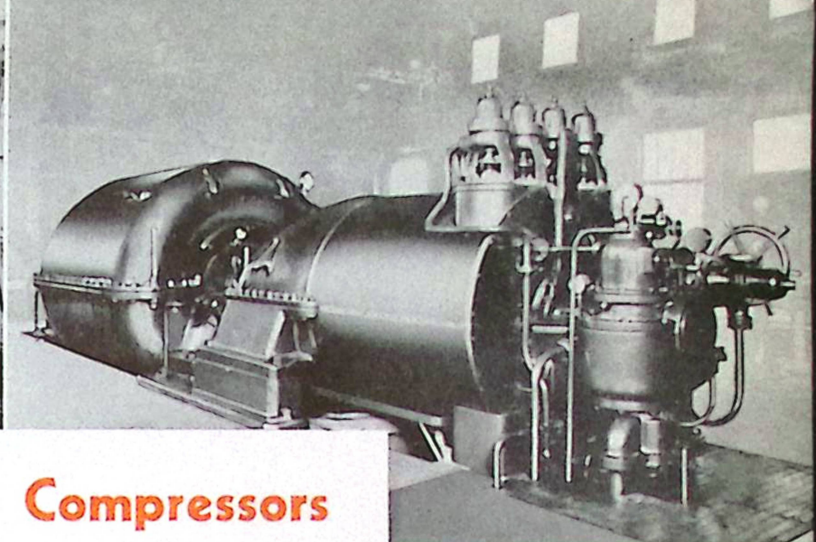
A test run in the shops of the 80,000 KW, 1200 lb. pressure Steam Turbo-Generator Unit for Port Washington, Wis.



A 115,000 KW and four other large A-C turbines and generators at Waukegan, Ill.



This Marine Scavenging Blower driven by a DC motor has a capacity of 21,000 cubic feet per minute.



This blast furnace Turbo Blower has a capacity of 60,000 cubic feet per minute at 30 lbs. per square inch.

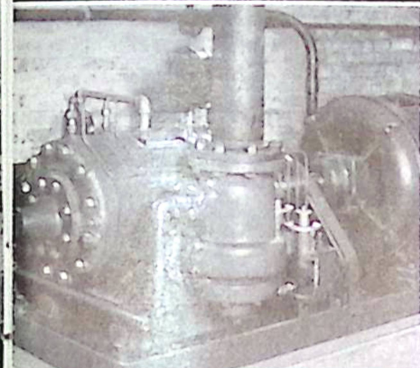
Blowers and Compressors

The Allis-Chalmers Manufacturing Company built and installed its first municipal pumping engine in 1875, and since that time, has been engaged continuously in the manufacture of pumping machinery.

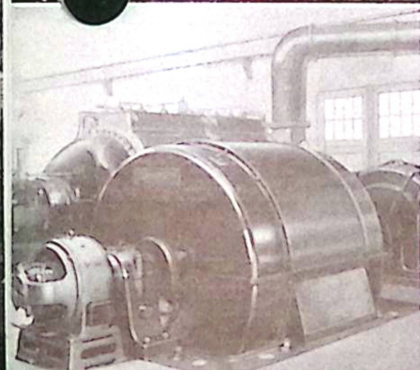
The first Vertical Triple Expansion pumping engine was built by the Company in 1886, and was installed in the City of Milwaukee's North Point Pumping Station. The economy of this pumping engine attracted the attention of water works engineers the world over, and this type was generally adopted by large municipalities in the extension of their water works systems. Pumping engines of the Vertical Triple Expansion type have been built in sizes delivering up to 50 million gallons of water per day.

In addition to its complete line of steam-driven crank and flywheel pumping engines for municipal and general water supply service, the Allis-Chalmers Manufacturing Company builds a variety of special reciprocating pumps, such as pumps for handling crude oil through pipe lines, hot oil refinery pumps, hydraulic pressure pumps, mine drainage pumps, boiler feed pumps, etc. Pumps for service of this kind are built in various sizes and are arranged to be driven by steam engines, motors or oil engines.

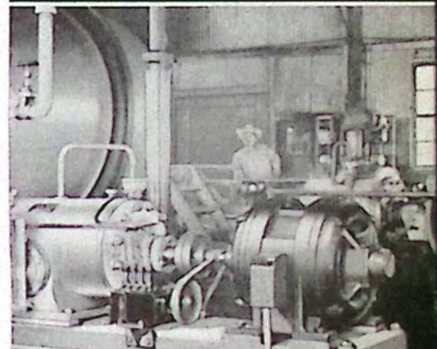
An early catalog of about 1890 shows the Company already actively engaged in the manufacture of horizontal engine-driven compressors and of large vertical blowing engines. The turn of the century brought the development of huge horizontal blast furnace gas engine driven blowers of which the Company made a specialty. One of the more recent developments of the Company is the new "RO-twin" compressor for pressures up to 100 lbs. gauge.



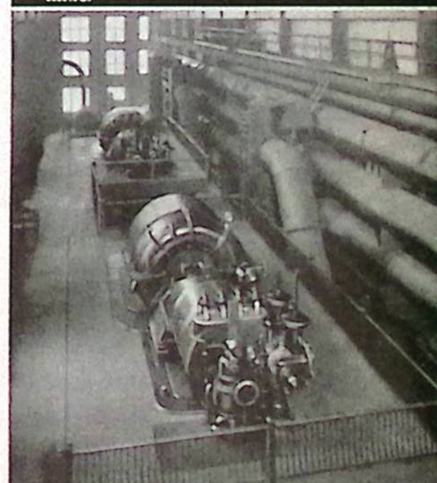
This single stage water cooled Reciprocating Compressor supplies compressed air for a Wisconsin Oil Co.



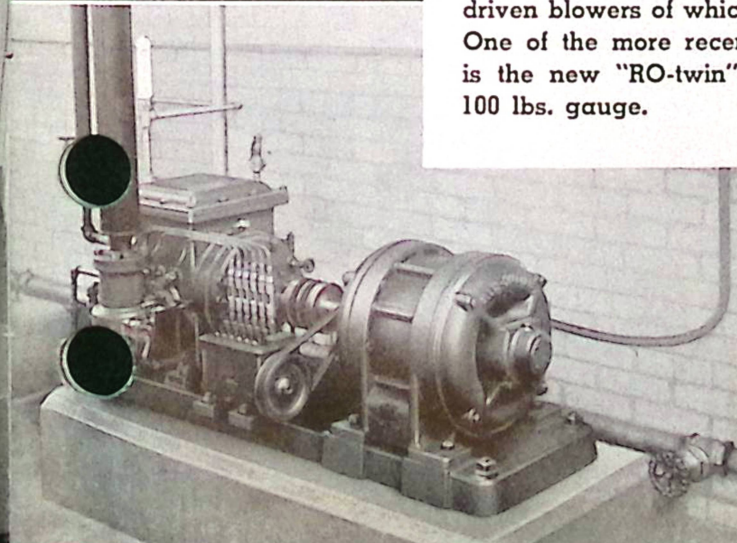
A Converter Blower having a capacity of 40,000 cubic feet per minute driven at 3100 R. P. M. through gears.



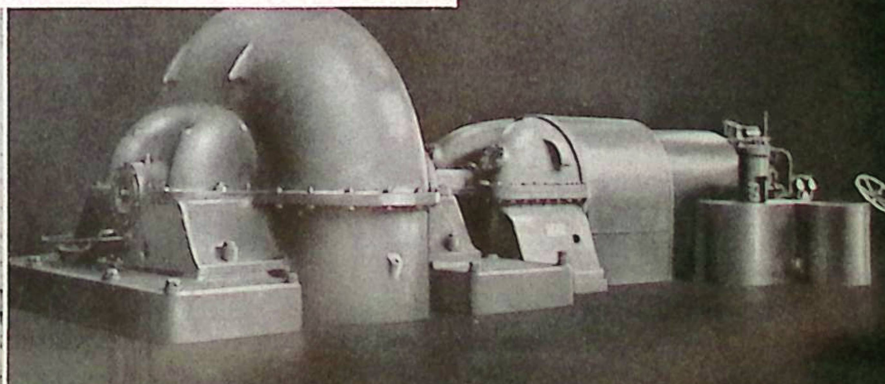
A Rotary Dry Vacuum Pump maintaining a 28" vacuum and delivering 580 cubic feet per minute in a Mexican mine.



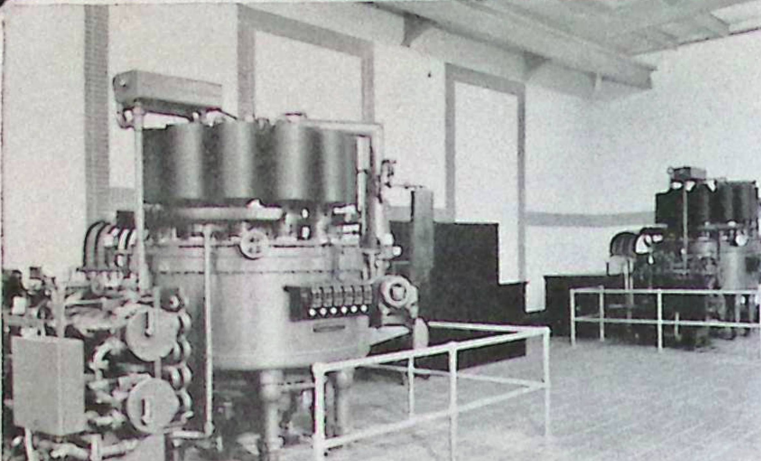
Each set of these A-C Turbo Blowers supplies 89,000 cubic feet of air per minute to the blast furnaces of a big steel company.



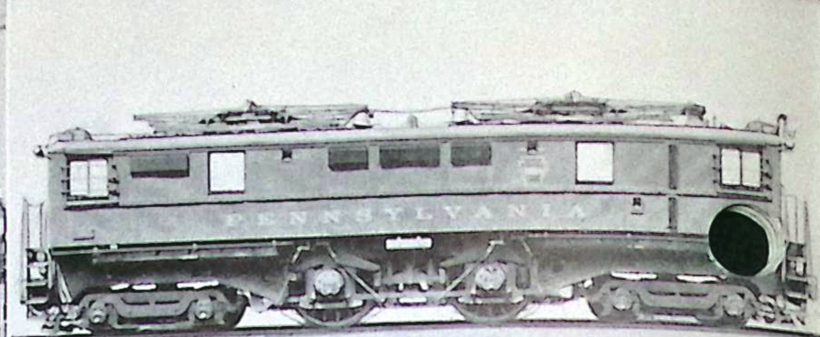
The RO-twin Compressor, a two stage air compressor designed for pressures up to 100 lbs. gauge.



A Two Stage Double Flow Turbo Blower driven by a steam turbine for Milwaukee sewage disposal.



A rectifier sub-station showing two 2000 KW 625 volt Mercury Arc Rectifier Units.



A-C entered the field of heavy Electric Traction in 1931 and is now equipment for electric and Diesel electric locomotives.

Electrical

Allis-Chalmers electrical equipment includes apparatus for producing, transmitting, converting, transforming and utilizing electric power. This equipment is manufactured at four of the Company's plants, the West Allis Works, Norwood Works, Boston Works and the Pittsburgh Works.

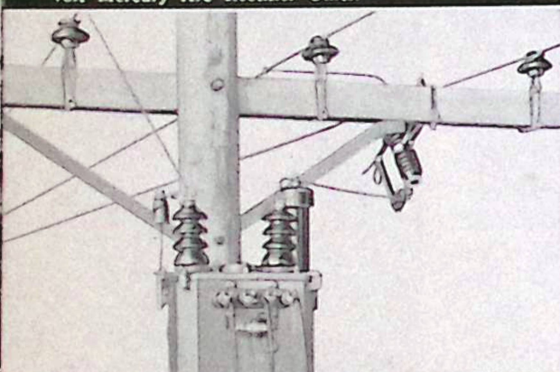
The Company's electrical products include the standard commercial lines of motors, generators, transformers, converters, etc., and many special lines of apparatus including the recently introduced "Armorclad" switchgear. Much of this equipment is built in large sizes for special application.

Allis-Chalmers motors range in size from one horsepower to some of the largest machines ever built, and for use in almost every industry. Those for special application include large steel mill motors, hoist motors, "Hytork" synchronous motors, oil well motors, textile motors, reversing planer equipment, etc., and special drives for particular service conditions.

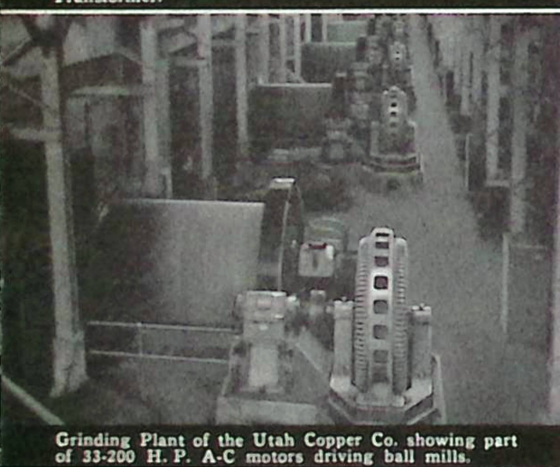
Generators are built for use with every type of prime mover in any practical size. World records have been established in size and capacity such as turbo-generator units for more than a hundred thousand kilowatts with single generators, water-wheel generators in various types and up to seventy thousand kilowatts in capacity and some of the largest steam, gas and oil engine generators ever built.

Transformers are furnished for every commercial application and include distribution transformers in all standard ratings, and power transformers up to the highest operating voltages in commercial service, some of these being the largest of their kind in the world.

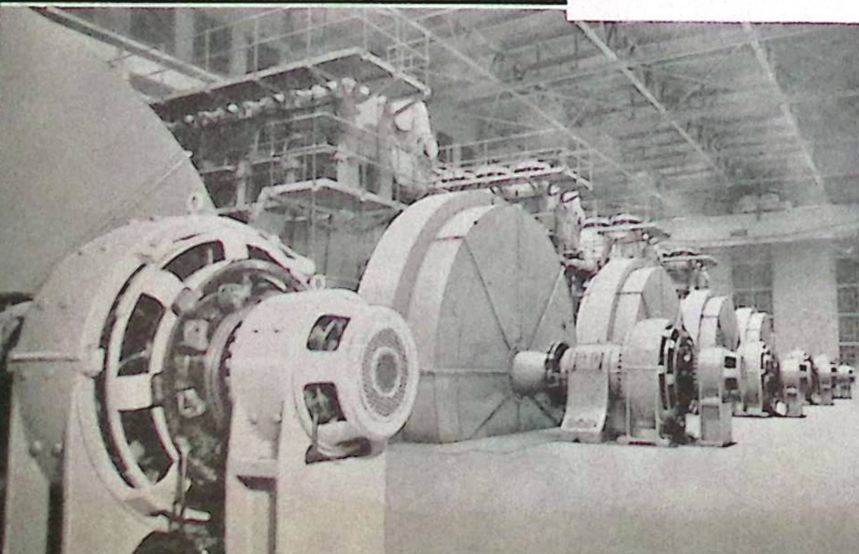
The Company introduced Reyrolle Armorclad Switchgear to this country in 1926, a new development in electrical switching and control equipment which provides complete safety to operators, economy of space and ease of installation. This type of oil circuit breaker equipment combines in one simple and compact factory-built unit, the busbar structure,



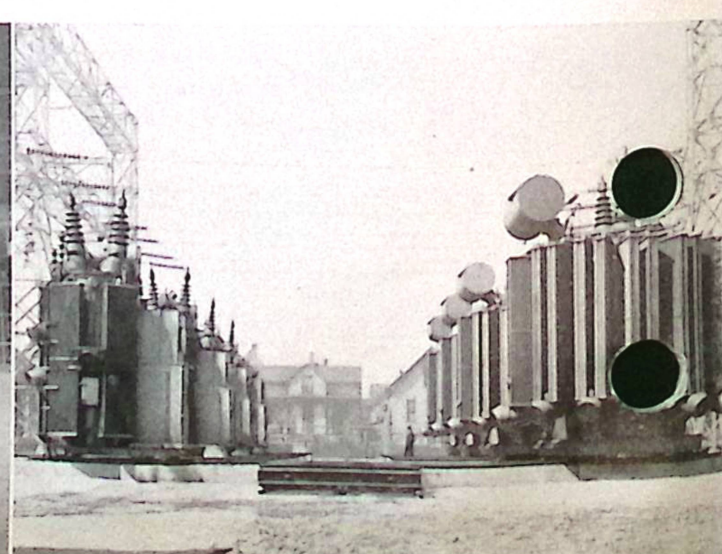
A typical Allis-Chalmers Pole Type Distribution Transformer.



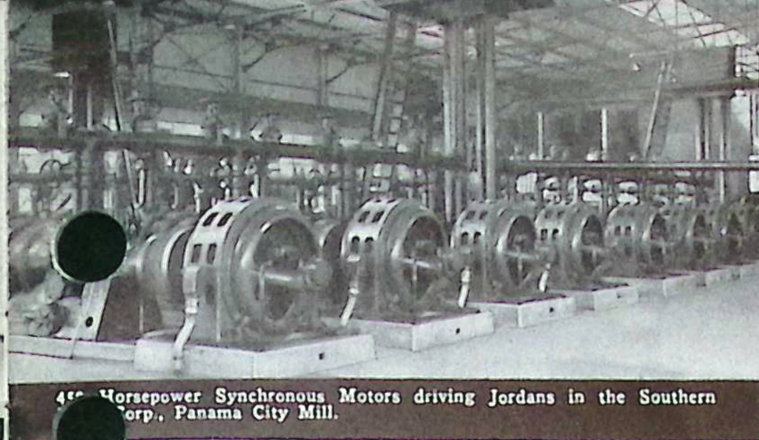
Grinding Plant of the Utah Copper Co. showing part of 33-200 H. P. A-C motors driving ball mills.



Five 7500 KVA., Diesel Driven Allis-Chalmers alternators in the plant of the City of New Orleans.



A typical Allis-Chalmers built transformer sub-station showing four 30,000



450 Horsepower Synchronous Motors driving Jordans in the Southern Corp., Panama City Mill.



Six Armoclad Switchgear units feeding a continuous hot strip steel mill.

Equipment

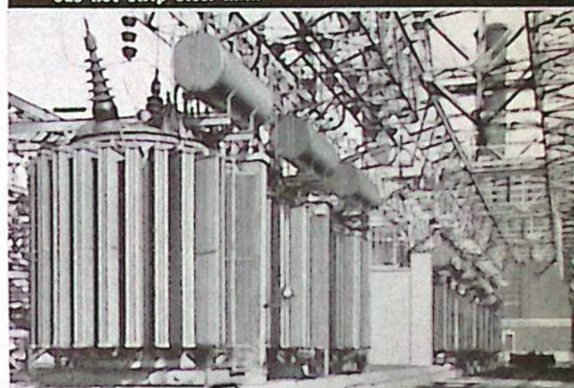
circuit breaker, outgoing feeder connection, instrument transformers and instruments. Allis-Chalmers "Armoclad" switchgear units have been installed in power stations, sub-stations, office buildings and for general industrial purposes. These installations include many of the leading utilities and industrial concerns of the country.

The Company has also added to its line the Mercury Arc Rectifier, built in many different sizes. These rectifiers are electronic devices which convert alternating current into direct current without moving parts, noise or vibration. Since 1931, the Company has also entered the field of heavy electric traction, and is manufacturing equipment for electric or Diesel-electric locomotives.

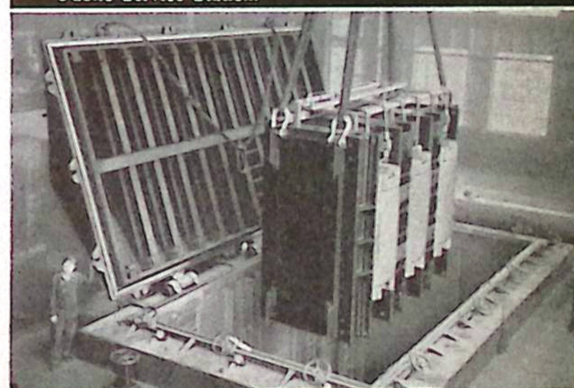
When one realizes that the Allis-Chalmers Manufacturing Company builds every type of prime mover—steam turbines, steam engines, hydraulic turbines, gas engines and oil engines—together with a full line of generators for each type, it is evident that this Company is in a position to accomplish what no other organization can perform, namely, the construction of complete power equipments of almost every description, built in the same shops and under one management. This is supplemented by a very complete line of auxiliary electrical apparatus consisting of motors of all types with their control equipment, transformers, switchgear, converters, motor-generators, frequency changers, switchboards, etc.

Complete motor and control equipment can also be provided for the Company's large and varied line of machinery, such as motor drive with mining, crushing and cement machinery, pumps, condensers, flour mill and saw mill machinery, hoists, etc.

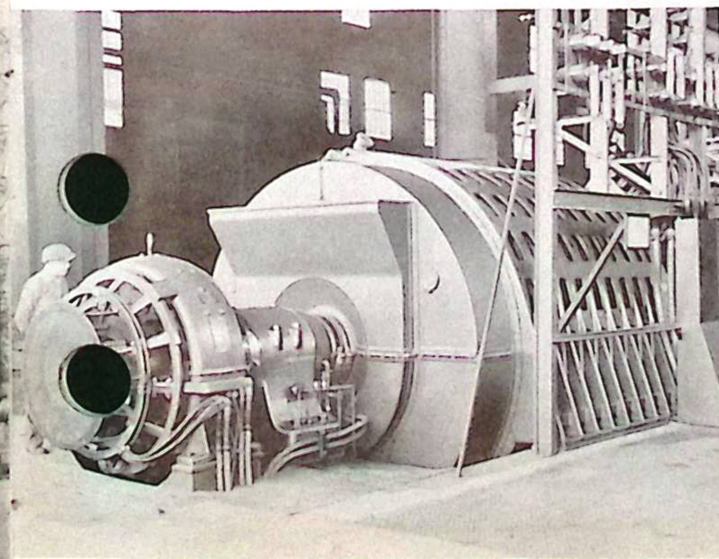
Thus Allis-Chalmers customers have not only the assurance of high grade equipment, but of harmonious working in every detail, of highest efficiency and undivided responsibility.



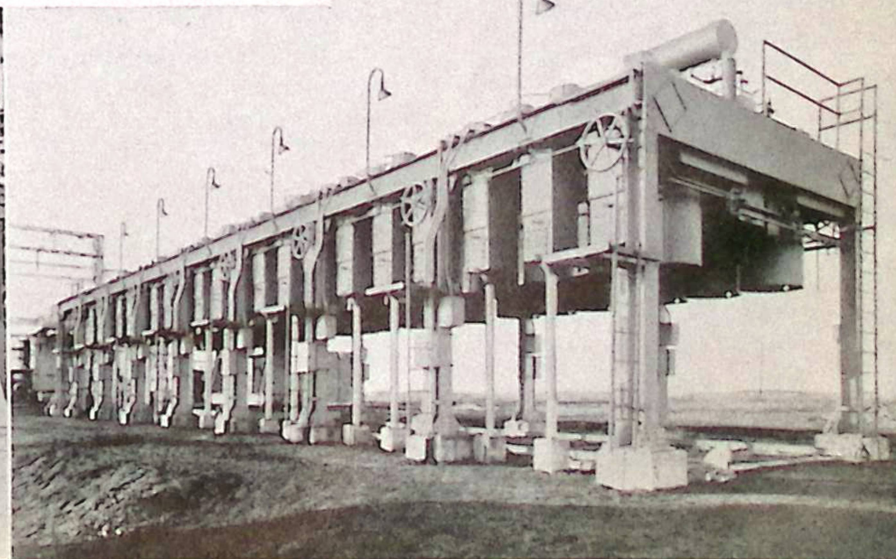
18-15,000 KVA Power Transformers in a New Jersey Public Service Station.



This huge Drying Tank was constructed at the West Allis plant to dry transformers under vacuum.



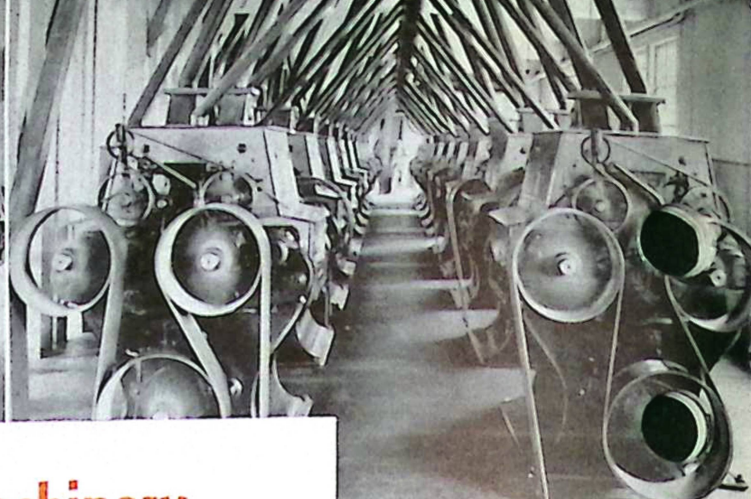
An A-C 30,000 KVA, 13,800 volt Synchronous Condenser.



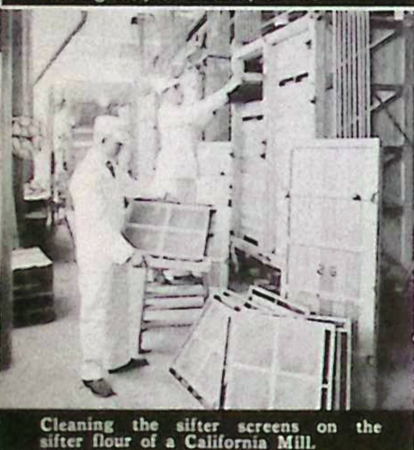
An A-C Armoclad Switchgear Outdoor Substation of the Public Service Co. of Northern Illinois.



The Roll Floor of the Russell Milling Co., of Buffalo, N. Y.



Roll floor of Saskatoon Plant, International Milling Company.



Cleaning the sifter screens on the sifter floor of a California Mill.

Milling Machinery

Since the introduction of the gradual reduction roller process of milling wheat into flour which Allis-Chalmers Manufacturing Company and its predecessors developed and introduced to the United States, the Company has been foremost in introducing improvements enabling the miller to make not only a better barrel of flour but also to produce it at a lower cost. By constantly improving and increasing its lines, Allis-Chalmers leadership in the milling industry has never been questioned. The Company's leadership in the milling industry extends to China and Japan, also Colombia, South America, and its equipment has been shipped to all parts of the globe.

Allis-Chalmers contracts to design and equip wheat flour mills, ranging in capacity from 30 barrels per day of 24 hours, to 10,000 barrels and larger; corn mills, degerminating or non-degerminating; feed mills and plants for milling oats, rye and buckwheat; grain elevators, and cereal food plants.

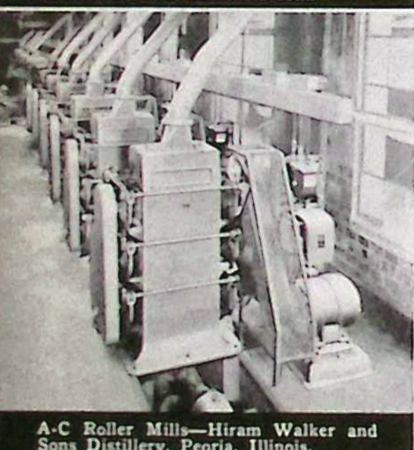
The Company's Allis and Nordyke lines of machinery offer the widest range of selection that is available. This advantage combined with the advanced engineering obtainable only from the resources of such an assembly of engineers as is found in the Allis-Chalmers organization for milling, electric, steam and hydraulic power, results in one responsibility for milling equipment and power with greater choice of designs to meet the established preference of all.

90 per cent of all the flour milling machinery in the United States bears the name of Allis-Chalmers.

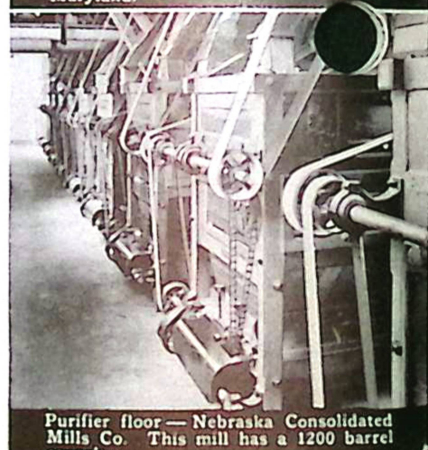
Allis-Chalmers is the only company which makes all of the machinery for producing flour, from the tilling of the soil to the finished product.



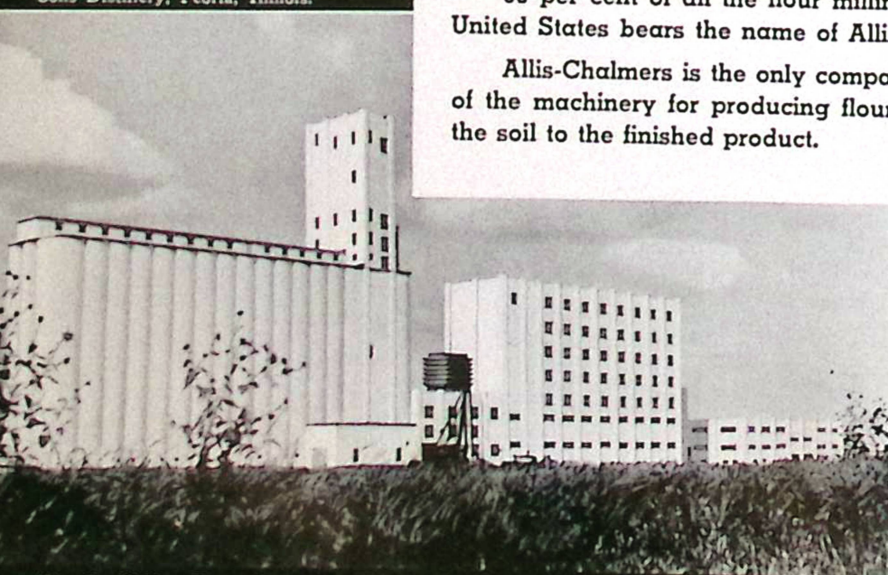
A-C 9" Distillery Mills—Baltimore Pure Rye Distilling Co., Dundalk, Maryland.



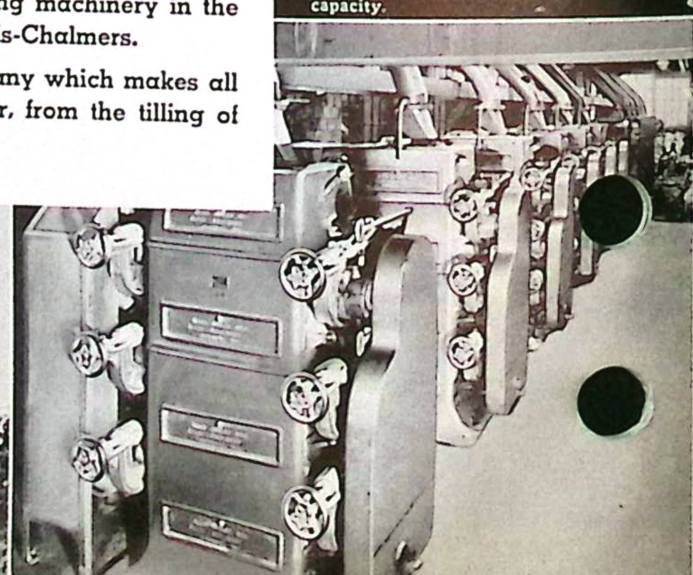
A-C Roller Mills—Hiram Walker and Sons Distillery, Peoria, Illinois.



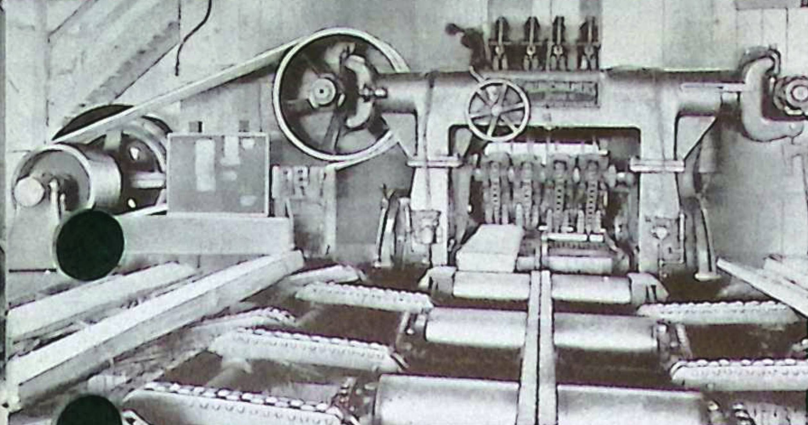
Purifier floor—Nebraska Consolidated Mills Co. This mill has a 1200 barrel capacity.



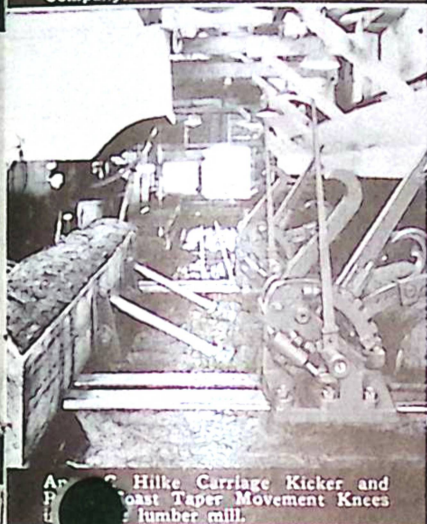
The Tex-O-Kan Flour Mills, Fort Worth, Texas. An A-C equipped mill with a daily capacity of 3000 barrels.



Allis-Chalmers Roller Mills in an Illinois Distillery.



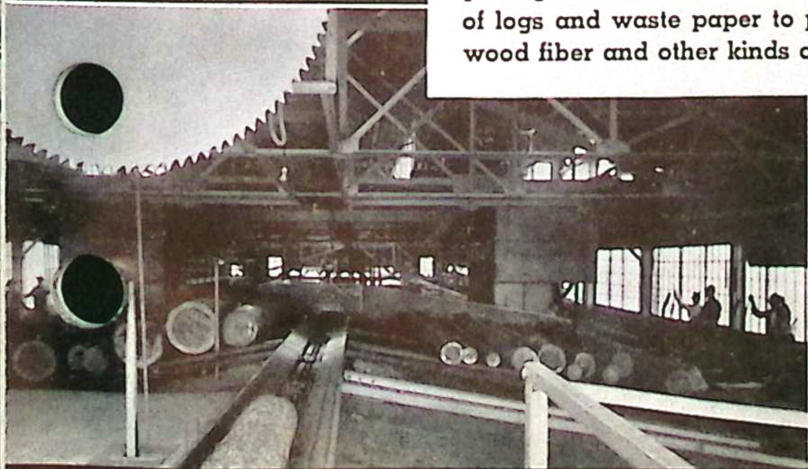
A 7-foot Horizontal Resaw built by Allis-Chalmers for an Oregon Lumber Company.



An Hilke Carriage Kicker and Coast Taper Movement Knees for a lumber mill.



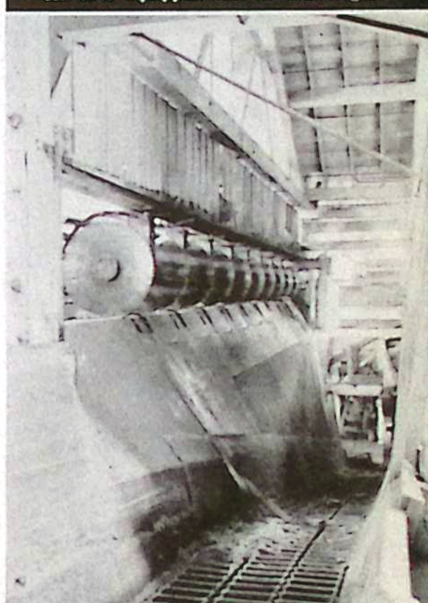
An A-C equipped saw mill at Seattle, Wash.



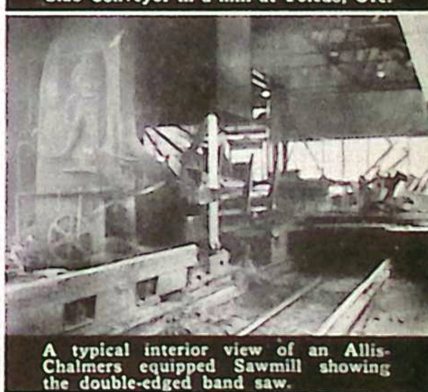
Interior view of a Tuscaloosa Lumber Mill showing A-C equipment.



An A-C equipped mill in Washington.



This rear view of Slasher shows the Slab Conveyor in a mill at Toledo, Ore.



A typical interior view of an Allis-Chalmers equipped Sawmill showing the double-edged band saw.

Saw Mill Machinery

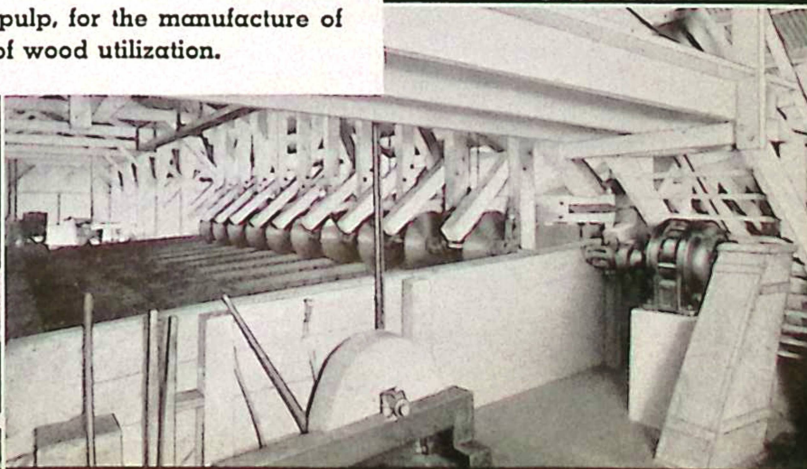
White pine from Maine, hardwood from the Great Smoky Mountains, cypress from the swamps of Florida, long leaf pine from the turpentine groves, giant redwoods from the Sierras, firs from Oregon—all have been manufactured by Allis-Chalmers saw mill machinery into homes spreading across the American Continent. In outlying parts of the earth, strange trees with stranger names are cut into lumber in saw mills equipped with Allis-Chalmers machinery.

The first great advance in the lumber industry came with the introduction of the band mill, a machine carrying a saw made from endless steel ribbon. This ribbon saw, one-half the thickness of the circular saw, reduced the waste from sawdust proportionately at every cut. The E. P. Allis Company was one of the earliest successful builders of the band mill, and the present Company still stands at the head of manufacturers of this type of machine.

With the advent of electric drive, high production and the sawing of giant Pacific Coast logs, larger mills were developed. Today Allis-Chalmers builds one type of band mill, the Type "C", in sizes up to ten feet, incorporating every desirable feature for long, terrific service.

Allis-Chalmers is the only builder of saw mills furnishing mill machinery as well as power plant and electrical equipment. Allis-Chalmers has designed and equipped, wholly or in part, many of the large and successful electrically driven saw mills in the world today.

Allis-Chalmers serves the saw mill of today, not only in the mill itself, but also by its ability to furnish special heavy machines for cutting up stumps, for making paving blocks, for sash and door factories, for reduction of logs and waste paper to pulp, for the manufacture of wood fiber and other kinds of wood utilization.



A 9-saw Slasher connected to A-C induction motors in a Washington lumber mill.



Geneser and Ferguson of Rhinelander, Wis. find their "LO's" and "Continental's" an ideal outfit for highway work.



The "WC" and "All-Crop" have successfully harvested 70 different kinds of grain and seed. This is wheat in Indiana.



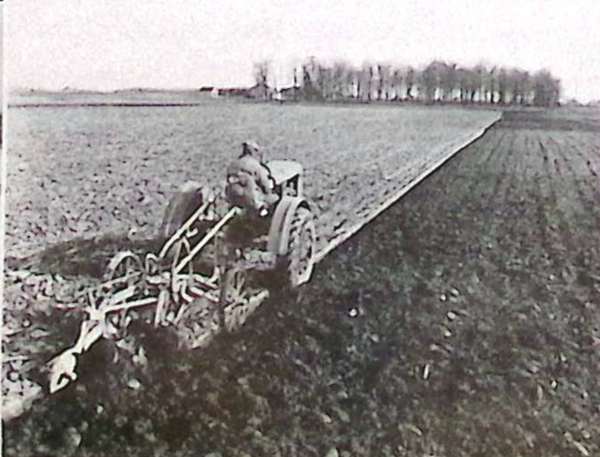
Allis-Chalmers industrial machinery make perfect team mates for any job.



A Model "LO" bulldozing for M. E. Gillioz on the Shenandoah Skyline Drive, West, Va.



Fond du Lac County's Model "L" busts 'em open after a bad snow in Wisconsin.



The "WC" and the Allis-Chalmers Championship plow do a perfect job on this farm.



A Model "L" and No. 14 leaning frame grader owned by Pewsey

Tractor

The Tractor Division is now one of the largest divisions of the Company and sells the output of four big plants. The products of the Tractor Division comprise a line of more than 200 units, and the name of Allis-Chalmers symbolizes leadership in the industrial and agricultural tractor and power equipment fields.

At the West Allis, Wisconsin, plant are manufactured wheel type tractors, and engines for tractors and equipment built in other plants. The La Porte, Indiana, factory builds the All-Crop Harvester, together with an impressive line of threshers, big combines, clover and alfalfa hullers, and road machinery, including a complete line of power and hand controlled blade graders, and single and tandem drive Speed Patrols. All crawler tractors and the Speed Ace hauling units are made in the Springfield, Illinois plant. At La Crosse, Wisconsin, the extensive line of Allis-Chalmers farm implements—cultivators, plows, bedders, harrows, mowers and many other power machinery tools—is built.

Allis-Chalmers Company entered the tractor field in 1915 when it designed and developed a three-plow farm tractor. The Company's second important step in the tractor market was made with the purchase of the Monarch Tractor Corporation Springfield, Illinois in 1928. This addition marked the entrance of Allis-Chalmers into the track-type phase of the tractor industry. The Company immediately began to modernize and enlarge the Springfield plant, and today this large factory builds eight different models of crawler tractors which are adapted for service in every type of agricultural and industrial usage.

Soon after the line of track-type tractors had been added, Allis-Chalmers engineers began to look toward smaller tractor units for both industry and farming. The result was a three-plow tractor, the first wheel-type tractor to be designed and built as an agricultural unit in both standard and row crop types.

In 1929, Allis-Chalmers Manufacturing Company rounded out its line of agricultural equipment by its purchase of the La Crosse Plow Company of La Crosse, Wisconsin, a concern with a high reputation in the world market for fine implements. In 1931 the Company further enhanced its agricultural line by acquisition of the Advance-Rumely Company of La Porte, Indiana, one of the oldest and most widely known builders of power farm machinery in the country.

Further purchases in 1931 and 1932 by the Tractor Division of the Company added a complete line of road maintainers, blade graders and speed patrols, together with the famous clover and alfalfa hullers formerly manufactured by the Birdsell Company of South Bend, Indiana.



An "LO" with "Carco" Arch brings in a big one, Vancouver, B. C.



The Model "A" pulls four bottoms with ease on this big Kansas farm.

Division

Allis-Chalmers' career in the fields of industrial tractor usage and in power farming has been characterized by a series of spectacular innovations and improvements—the Controlled Ignition oil tractor, the rubber-tired farm tractor, and, last of all, the All-Crop Harvester.

The unusual principle of engine operation, called "Controlled Ignition" by the engineers, which combines the advantage of Diesel fuel economy with gasoline engine smoothness, was introduced to tractor power in the larger Allis-Chalmers track-type models. In contrast to the usual method of operation on Diesel fuel, the new oil tractors do not rely on high compression pressures to ignite the fuel charge. Instead, a magneto and spark plug, similar to those used on gasoline engines, are employed. The elimination of extra pressure does away with the "whip" and "roughness", always a problem in Diesel engines.

Allis-Chalmers engineers put the farm tractor on rubber tires. Farmers and tractor engineers alike scoffed at the idea, but in spite of skepticism, rubber mounted tractors were built and tested . . . with amazing results. Not only did they enable the tractor to do more work with less fuel, but they had greater traction than ordinary spade lug machines. This Allis-Chalmers idea is now universally accepted as one of the major advancements in power farming history.

The latest Allis-Chalmers achievement is the All-Crop Harvester, so revolutionary in its results that it is hailed as the successor to the binder. The All-Crop has harvested successfully more than 70 different small grain, seed and bean crops, including wheat, oats, rye, flax, rice, clover, soybeans, peas, lespedeza, and many others. It is a comparatively small machine, though its capacity for higher speed harvesting gives it the ability to do as much work as many of the larger machines. It can be operated by a two-plow tractor, and one man can run the entire outfit. Its revolutionary design enables the All-Crop Harvester to save badly damaged or weedy crops which could not be harvested with conventional combines or with the binder. Yet it is sold at a price which even small farmers can afford.

From the great lumbering areas of the Northwest through the diversified crop regions of the Cornbelt, to the cotton fields in the South and the fertile low lands of the East Coast, thousands of Allis-Chalmers tractors, threshers, combines, implements and other equipment—more than 200 types of units in all—are daily providing power for modern farming and great industrial projects. In summer and winter, the products of the Tractor Division are at work in this country and abroad.



This "WK" and Baker Bulldozer work 12 hours a day for Connell and Laub relocating highway #76 in Ohio.



The Model "M" and an A-C plow turn the soil on the truck farm of K. V. Takashuma near San Diego, Calif.



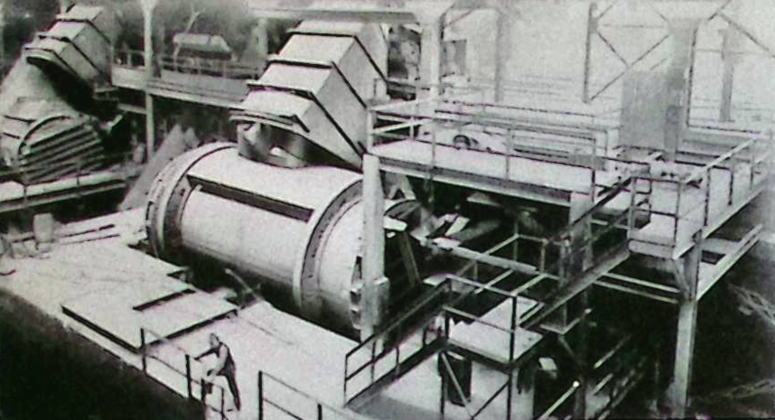
The Model "M" pulls this six-foot Towner disc with ease up the steep grades of the Marcy Ranch Orange groves, Santa Ana, California.



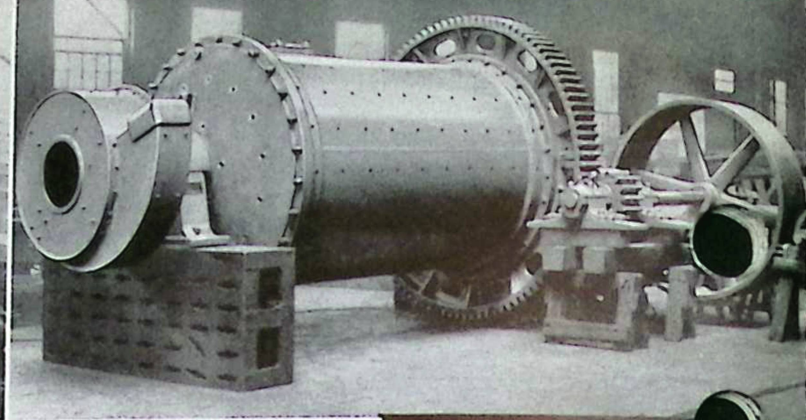
Three of the eleven Speed-Ace units working for George Condon at Alcova Dam, Casper, Wyoming.



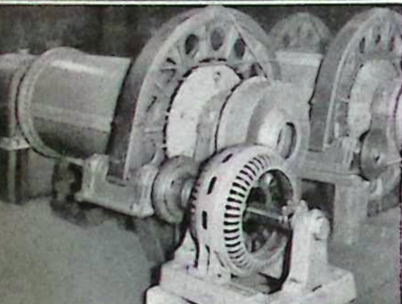
The Allis-Chalmers Tandem Drive Speed Patrol has power and traction for every job.



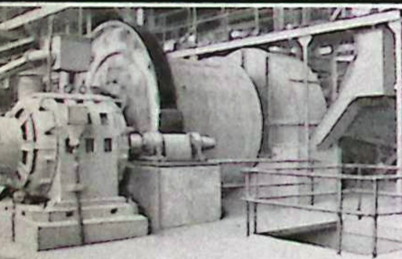
A big Copper Converter Plant in Nevada.



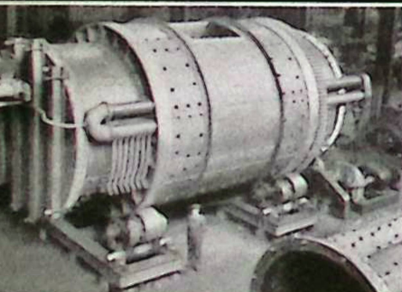
A shop set up of a 6' x 10' Ballator with Texrope drive.



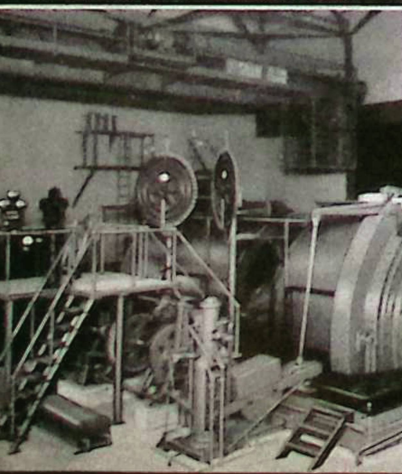
One of five Dry Grinding Rod Mills with herringbone gears and magnetic clutch built for a South African mine.



One of ten A-C Ball Granulators in the milling plant of a South African mine.



A huge A-C Copper Converter ready for shipment to a well-known mine.



This A-C Speed Hoist is driven by a 2,000 H. P. motor and delivers 56,800 lbs. rope-pull for Anaconda Copper Mining Co.

Mining Machinery

Allis-Chalmers Manufacturing Company and its predecessors have been identified with the development of mechanical equipment used in connection with mining and metallurgical operations during the past fifty years.

The discovery of gold in California stimulated prospecting for this metal throughout the mountain regions of the West and incidentally led to the discovery of large and valuable deposits of other precious metal-bearing ores, such as the Comstock gold-silver mines at Virginia City, Nevada, the lead-silver mines at Leadville, Colorado, and many others. Later came the discovery of the great porphyry copper deposits and the low grade bodies of lead and zinc ores. The discovery of these large bodies of complex ores created a necessity for new metallurgical processes and improved methods of treatment.

Present day mechanical equipment used in connection with mining and metallurgical operations has reached a high state of perfection in this country. Allis-Chalmers Manufacturing Company and its predecessors, Fraser & Chalmers, E. P. Allis Company and Gates Iron Works, have unquestionably been the largest contributors to the development and improvement of this class of machinery. Allis-Chalmers machinery is recognized as standard everywhere and is to be found in every prominent mining district in the world.

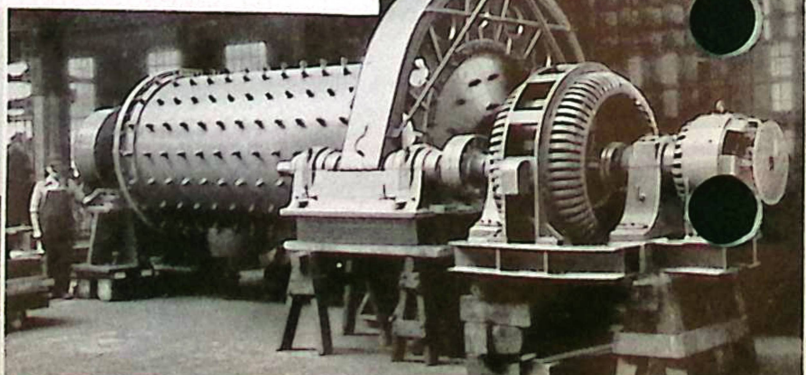
No other manufacturer is in position to offer such a complete line of mining and metallurgical machinery, including Power and Electrical equipment, designed and built under the direction of one organization, as Allis-Chalmers Manufacturing Company. Its products include a complete line of hoists, pumps and compressors for mines, ore crushers and fine grinding equipment, including ball and rod mills, concentration, cyanidation and chlorination machinery, roasting, smelting, converting and refining equipment.



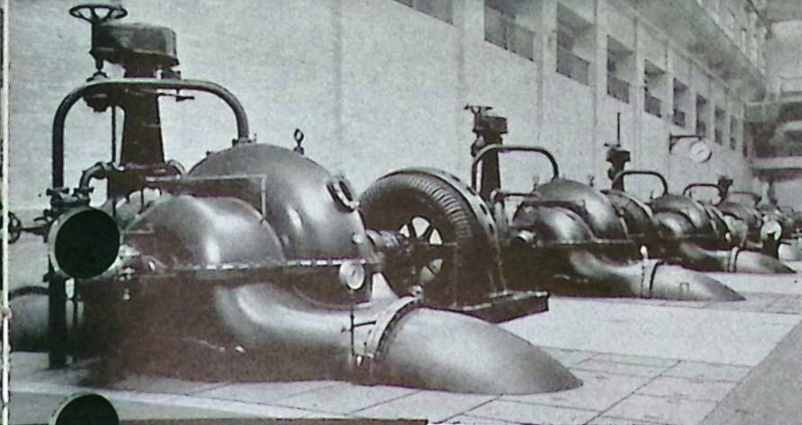
An A-C Straight Line Casting Machine and Revolving Copper Holding Furnace at a Nevada Copper Converting Plant.



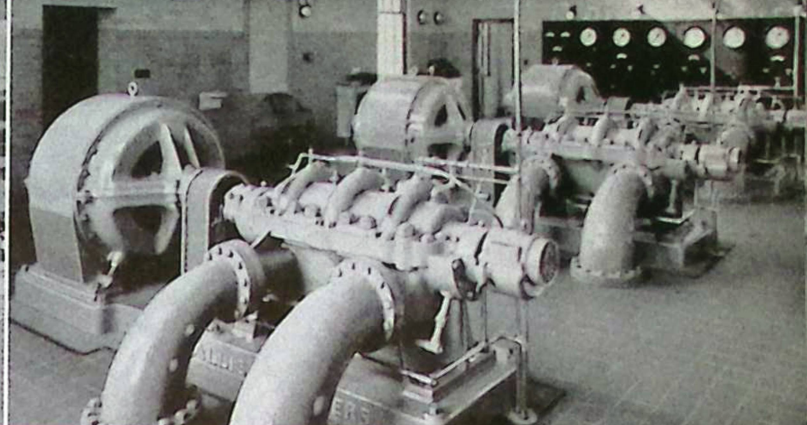
This rectangular Water Jacketed Furnace separates the slag from the copper in a big mining plant.



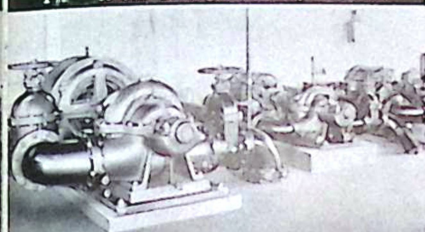
Assembly of 6' x 15' Ball Mill showing 250 H. P. motor drive.



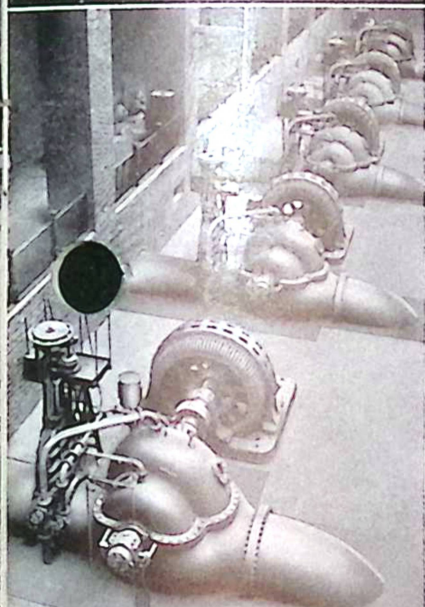
Pumps at the West Side Sewage Plant of the Chicago Sanitary District.



Three 10" x 8" three-stage high pressure fire pumps, driven by 600 H. P. motors—City of Milwaukee Fire Dept.



Interior view of a pump house showing part of eight Allis-Chalmers type S Pumps.



Centrifugal Pump units at the North Side Treatment Works, Chicago Sanitary District driven by 1000 H. P. motors.

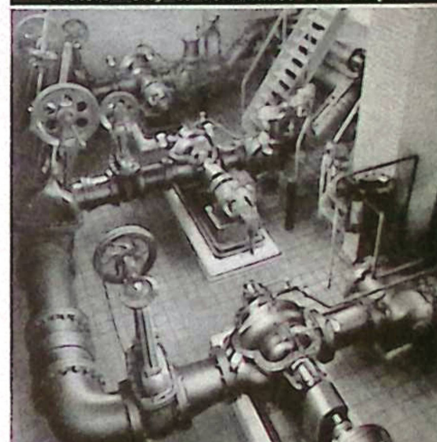
Centrifugal Pumps

In 1884, in the early days of the Centrifugal Pump industry, one of the predecessor companies of the present Allis-Chalmers Manufacturing Company built its first Centrifugal Pump. Since that time, when the business consisted principally of large pumps for special applications, or very inefficient small pumps, it has developed and changed so that at the present time the centrifugal pump business is largely made up of the sale of standard types of pumps in the smaller sizes, to almost every industry and for a great variety of uses. This change has come about due to the many advantages of the centrifugal type of pump, which could be utilized more and more as the design of centrifugal pumps improved to increase their efficiency. The Allis-Chalmers Manufacturing Company has been one of the leaders in improving and increasing the use of centrifugal pumps; the announcement in 1915 of 85 per cent efficiency obtained from a 10" pump being exceptional at that time. Today the centrifugal pump is probably the most important class of pumping machinery not only in volume of sales, but also in variety of applications.

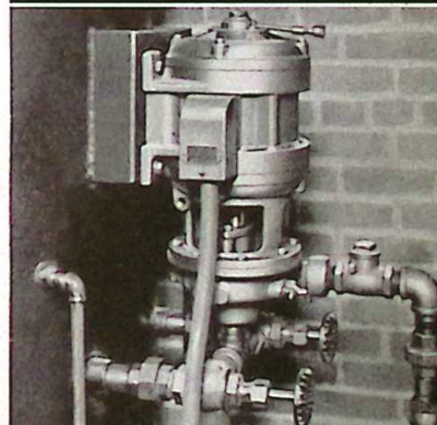
The Company's line of Centrifugal Pumps includes: low, moderate, and high head single stage pumps, the smallest having a 1" discharge and the largest a 72" discharge. In addition, the Company has the facilities to undertake almost any special application of centrifugal pumps, in the largest sizes which would be practical.

The ability of Allis-Chalmers Manufacturing Company to furnish drives such as motors, steam turbines, etc., of its own manufacture for its centrifugal pumps is also a rather exclusive advantage.

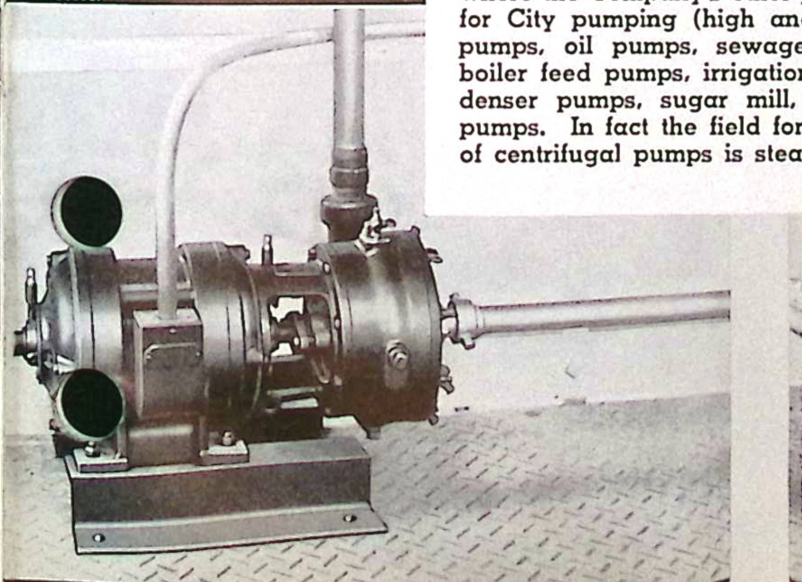
Centrifugal pumps are sold into nearly any industry where the Company's other products go. They are used for City pumping (high and low service), and as fire pumps, oil pumps, sewage pumps, drainage pumps, boiler feed pumps, irrigation pumps, mine pumps, condenser pumps, sugar mill, paper mill and steel mill pumps. In fact the field for the economical application of centrifugal pumps is steadily expanding.



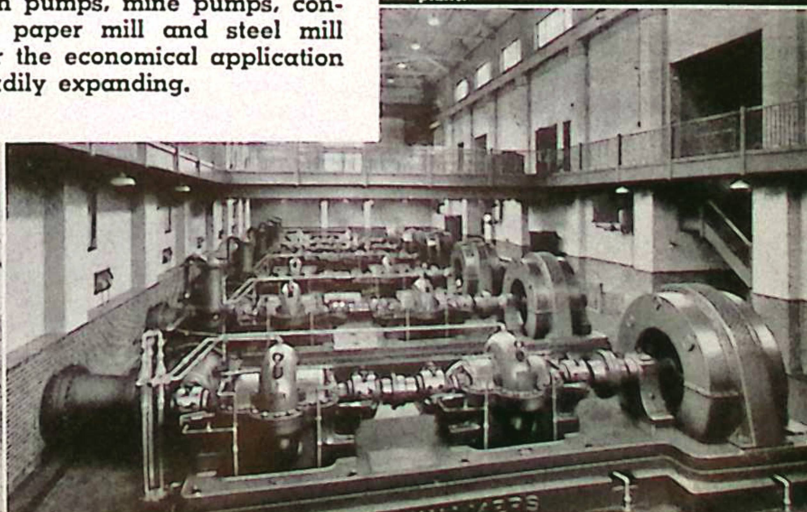
The Village of Willmette, Ill., uses this set of Pumps which rate 2780 ga. per min. at 18 ft. head.



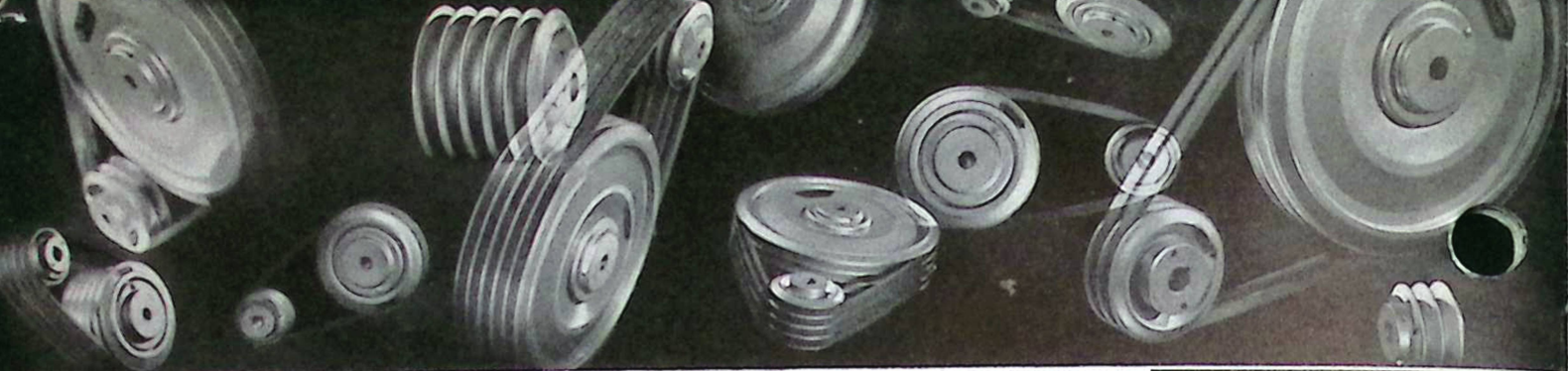
This A-C Pump mounted in a vertical position operates in a Toledo Glass plant.



This small, totally enclosed Bronze Pump handles cold beer at a Milwaukee Brewery.



Six A-C Pumping Units at the Brilliant Pumping Station, Pittsburg, Pa.



Texrope Drives

Here again the pioneering spirit of Allis-Chalmers developed a new power drive which in the past decade has revolutionized the transmission of power. These Texrope Drives were originally used for small horsepower drives but they have since been designed for practically all requirements, regardless of horsepower, the largest to date being 2,000 h. p.

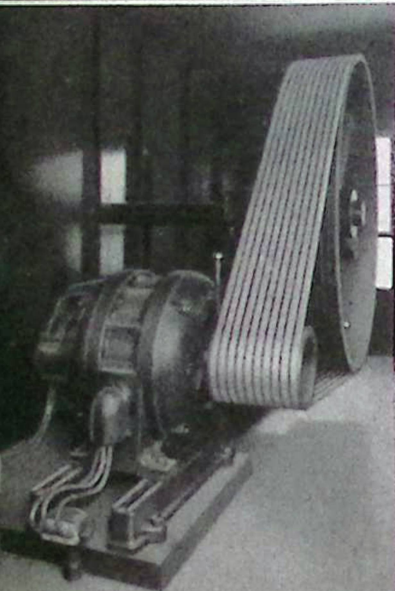
Allis-Chalmers Texrope Drives, known and used the world over, were first introduced ten years ago in the textile industry. The smooth quiet operation of these drives, together with the advantages due to the transmission of power without slip and the gradual acceleration of the machine from high speed motors with across-the-line starters so appealed to operators that instant acceptance of them was gained.

Texrope Drives play an important role in the successful ventilation of theatres, offices and public buildings, hotels, schools, churches, hospitals, factories, mines, etc. Its diverse advantages have also been recognized in other large industries such as textile, paper, machine tool, woodworking, printing, laundry and numerous others.

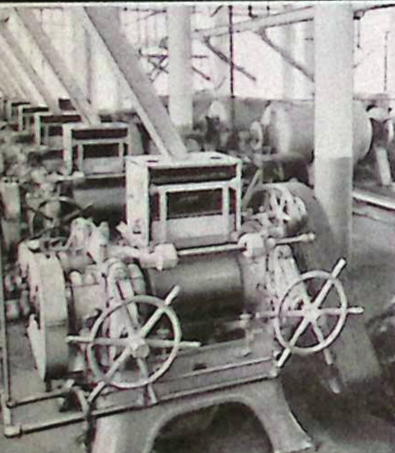
The Texrope Drive has been successfully applied in the oil fields, for pipeline service in driving pumps, and on single and double reduction units for pumping, drilling or other machinery. Heavy drives for which Texropes are very successful include mining and crushing machinery, dredge pumps, and others.

While the first drives were installed only five years ago, due to their amazingly rapid acceptance and wide application to industry, there are today over 75,000 Texrope Drive installations aggregating considerably more than 1,000,000 horsepower.

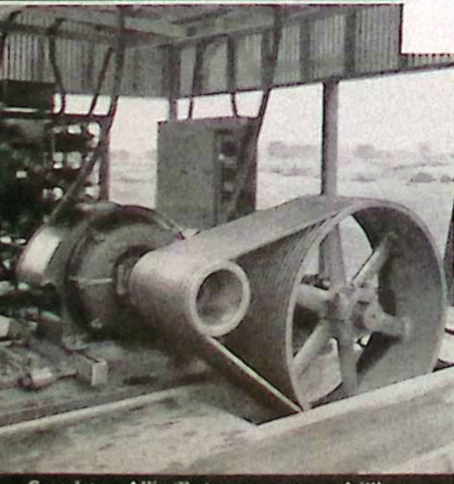
Improvements are continually being made, as evidenced by the latest duro-brace texsteel sheaves for low horsepower and the recent vari-pitch adjustable sheaves, permitting adjustment of speed where required.



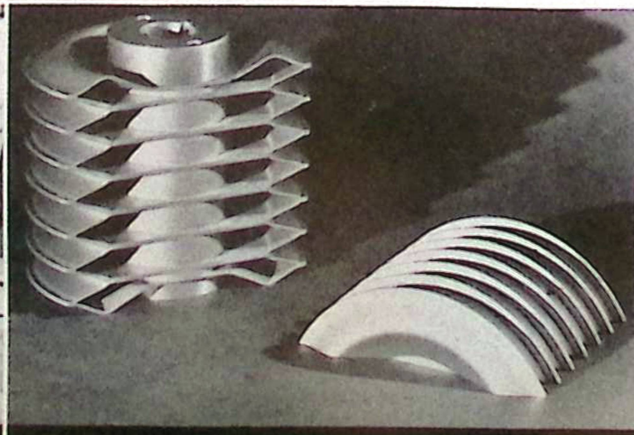
This big mine fan is driven by an A-C 60 H. P. Motor and Texrope Drive.



One of two lines of Heavy-duty Flaking Mills in a large cereal plant.



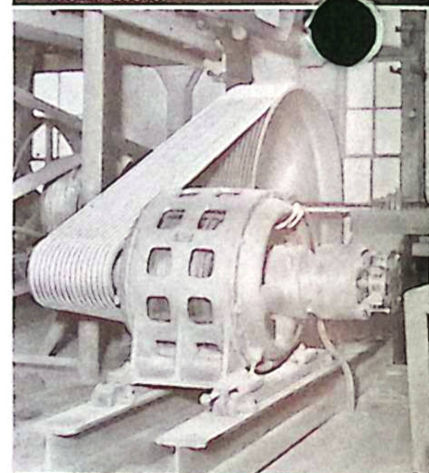
Complete Allis-Chalmers rotary drilling equipment with a Texrope Drive in Oklahoma.



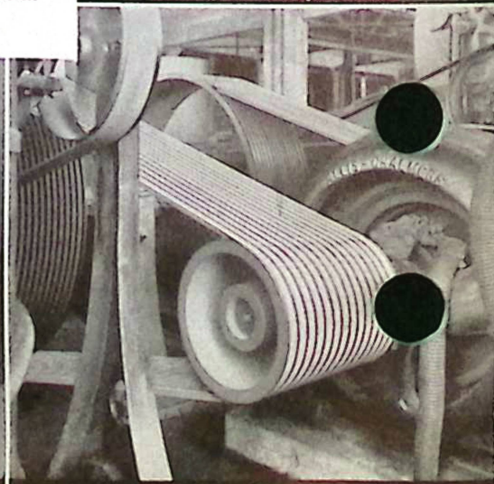
The new Duro-Brace Texsteel Sheave.



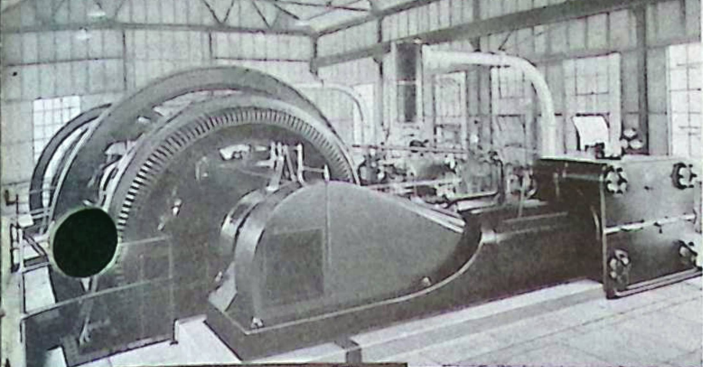
Texrope Drives prove ideal for high speed surface grinders such as the one shown above.



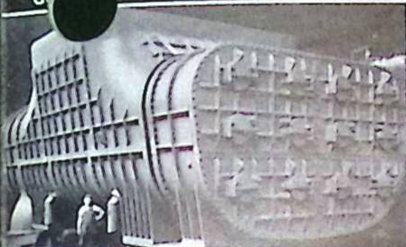
This 150 KW A-C Generator operating in a large malt plant in Milwaukee is driven by a Texrope Drive.



An Allis-Chalmers Motor and Texrope Tandem Drive in the heater room of a Washington Paper Mill.



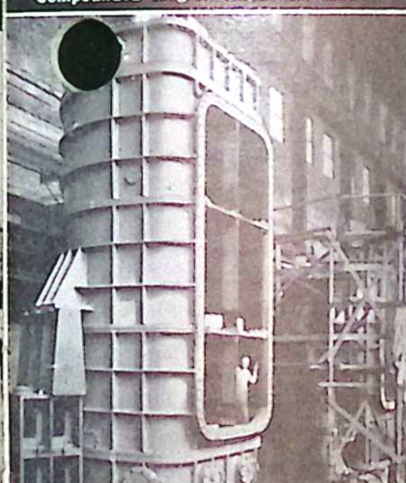
1000 KW Cross Compound Allis-Chalmers Corliss Steam Unit installed in the Hawaiian Islands.



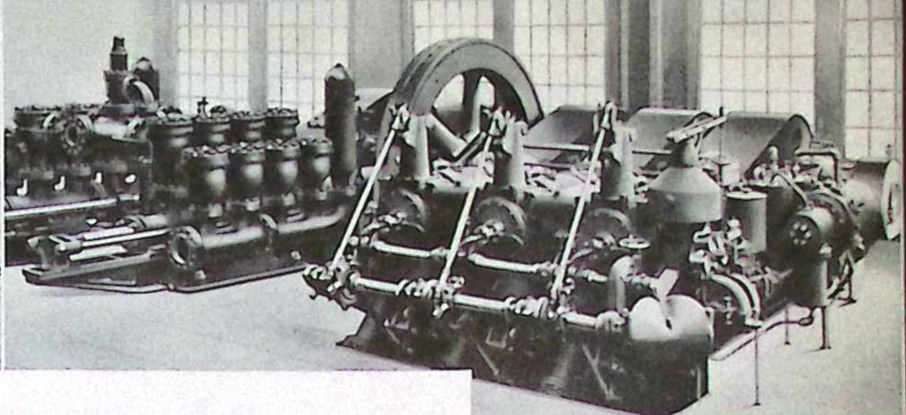
This Horizontal Condenser contains 80,000 sq. ft. of surface and serves an Allis-Chalmers 115,000 KW Turbine.



Two Allis-Chalmers 500 KW Cross Compounded Engine Generator sets.



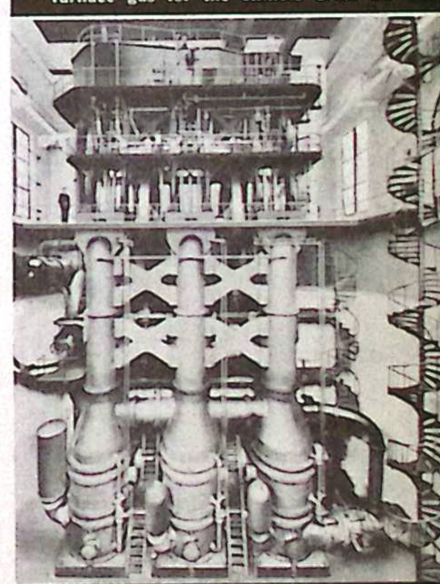
One of eight Vertical Condensers built for a 208,000 KW turbine, the largest condensing plant ever built for a single unit.



An A-C Triplex oil engine and duplex double acting plunger pump. The Company has installed 180 of these engines on a single pipe line.



Six 6,000 H. P. and two 10,000 H. P. A-C gas engines, the largest in the world, produce power from blast furnace gas for the Illinois Steel Co.



One of the largest Vertical Triple Expansion Pumping Engines ever built, 30 million gallon capacity for the City of Louisville.

Engines

The Allis-Chalmers Manufacturing Company has long been known as the largest builder of steam engines, gas engines and oil engines and has supplied more than 6,000,000 horsepower to various industries throughout the world.

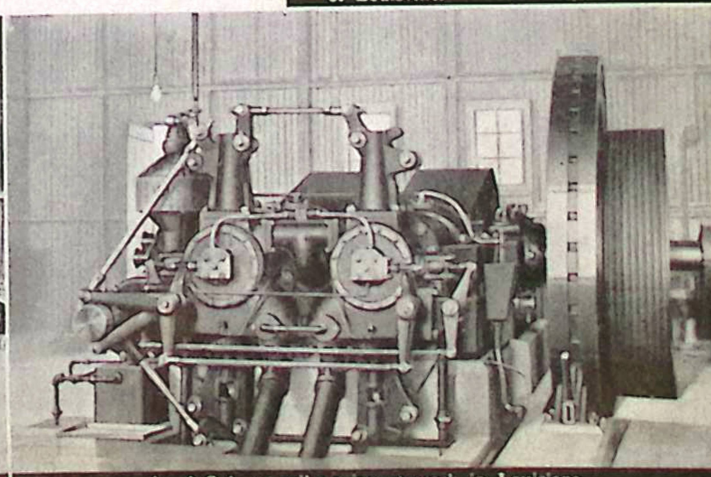
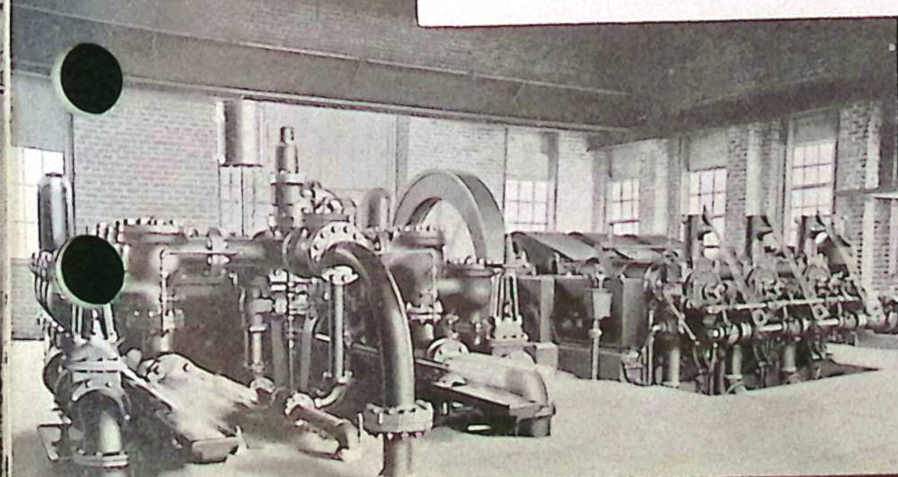
Allis-Chalmers Company was the first builder of slow speed, direct connected electric units and supplied several hundred thousand horsepower of these machines to practically all of the more important public service companies in the United States and many municipalities and power plants abroad.

With the rapid spread in the use of electricity, particularly for street cars in the early '80's, a tremendous demand arose for the high economy A-C Reynolds' Corliss engines which led this field for 30 years in practically every prominent power plant in the United States and abroad.

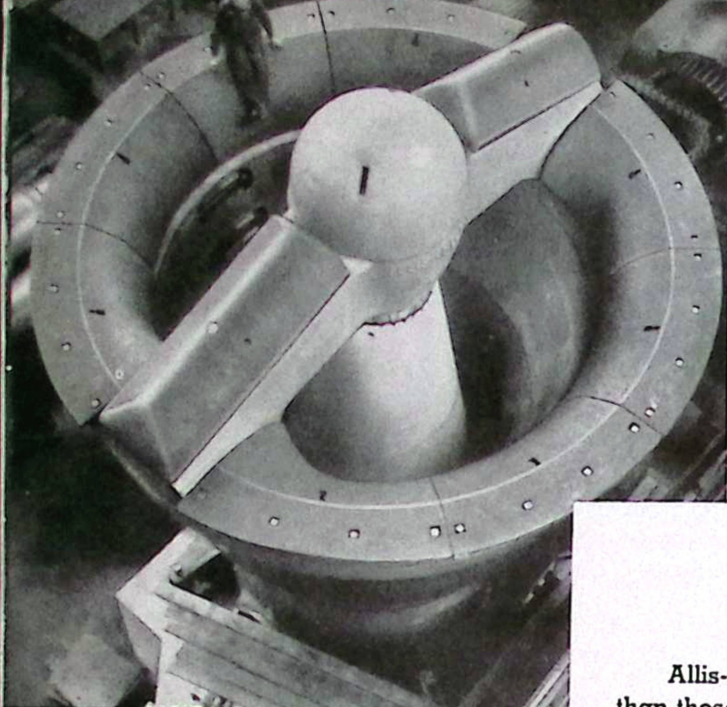
The Allis-Chalmers Company has built condensers for more than 50 years and with the advent of the large steam turbine, developed a line of large surface condensers for this particular class of work. The largest condensing plant ever built for a single unit was built by Allis-Chalmers for a 208,000 k. w. turbine and consisted of eight large vertical condensers.

The Company has built many large gas engines like those used by the U. S. Steel Corporation burning waste gases from the blast furnaces. U. S. Steel uses 110 of these engines, two of which are the largest gas engines ever built, developing 10,000 horsepower each.

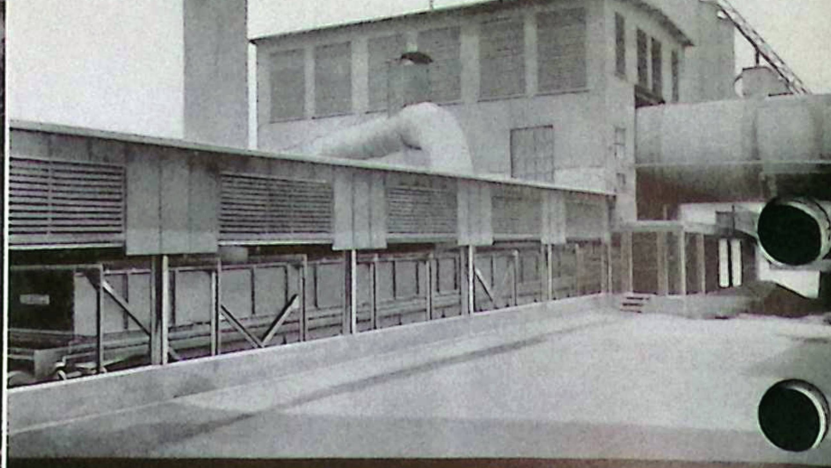
With this background and reputation for building the finest engines that skill and research could produce, it was only natural that with the advent of the Diesel engine, Allis-Chalmers would be one of the first to develop and introduce an American Diesel engine. The Company introduced their first Diesel engines in 1914 and many of these early Diesels are still in use in pipe line work. It is significant to note that Allis-Chalmers built the first Diesel tractor, recognized the inherent faults of this engine for this type of work, and went on to develop a better engine ideally suited for tractor work.



An A-C heavy oil engine at work in Louisiana.



Looking down into the Worlds Largest Crusher, capable of crushing 2500 tons of copper ore per hour.



An A-C Air Quenching Clinker Cooler handling the output of an A-C Kiln.

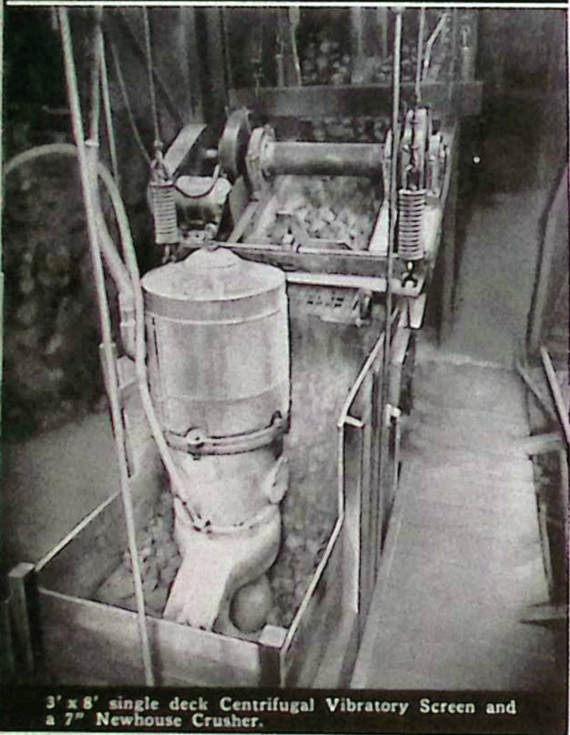
Crushing and

Allis-Chalmers rock and ore breakers are more extensively employed than those of any other make. The sun never sets on Allis-Chalmers crushing and cement making machinery. The gold ores of Alaska, the iron ores of Norway, (the latter within the Arctic Circle), the cement rocks and gold ores of Australia and South Africa are crushed by Allis-Chalmers rock and ore crushers. In practically all of the countries of Asia, North America, South America, Africa and Europe, Allis-Chalmers crushers are used for crushing either ore, cement rock, or rock for flux, concrete work, railroad ballast or public highways.

Allis-Chalmers pulverators make the cleanser which scours your pots and pans, the talcum powder you use after shaving, and the powder your wife uses to take the shine off her nose. Other Allis-Chalmers pulverators are used to prepare the limestone you use as fertilizer, and A-C crushers prepare the aggregate used to repair or surface the roads you use.

The Company has developed in all sizes the three principal types of primary crushers, viz.: Gyratory, Jaw and Fairmount or Single Roll Type, and is thus in a position to serve prospective customers disinterestedly in the selection of that type most economically suited to each condition.

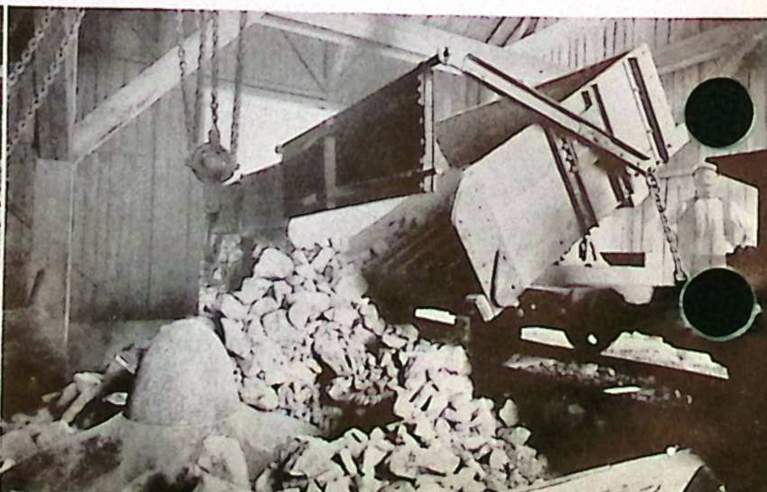
Among the Company's largest installations will be found four 60" all-steel Gyratory crushers installed in Chile, South America; two built for one of the largest copper mining companies, and two for one of the large nitrate companies. They are the largest crushers in the world, and have a capacity of approximately 2500 tons per hour each. Each of these big machines weighs one million pounds and special narrow gauge railway cars had to be built to transport two of them to mines high up in the Andes Mountains. In the United States there will be found two Allis-Chalmers 60" Gyratory crushers of iron construction operating on lime-



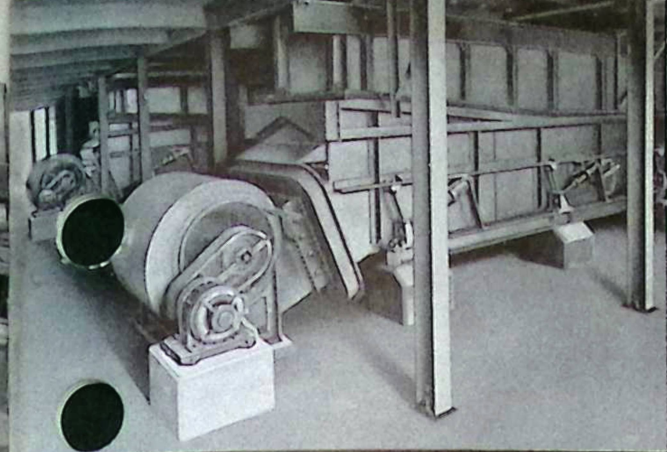
3' x 8' single deck Centrifugal Vibratory Screen and a 7" Newhouse Crusher.



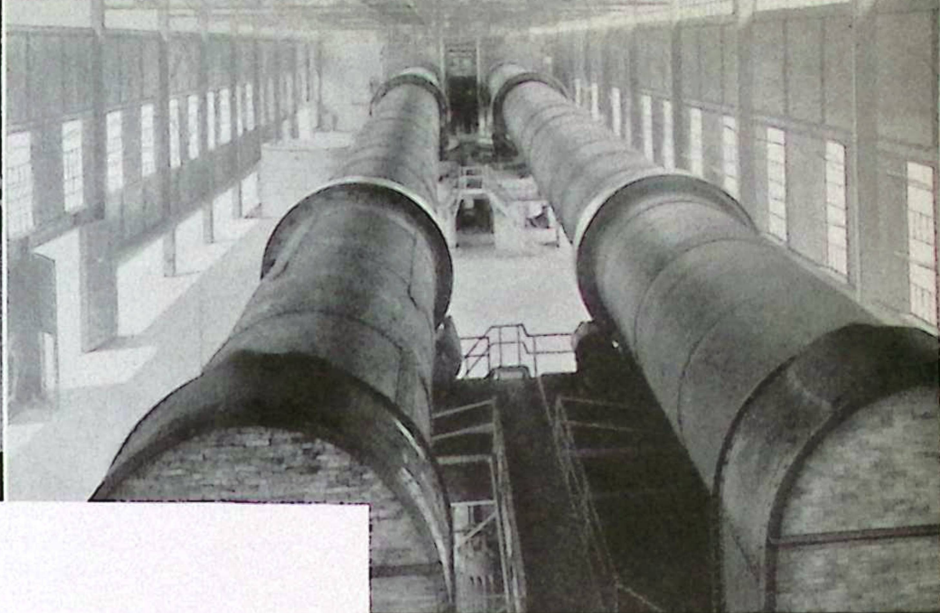
An A-C equipped South American Cement mill.



Dumping rock from a car into an Allis-Chalmers crusher in Toulon, France.



Two 3' 6" x 36' A-C Air Quenching Clinker Coolers in a large New York Cement Plant.



Two Allis-Chalmers 11' x 175' Kilns in an Iowa Cement Plant.

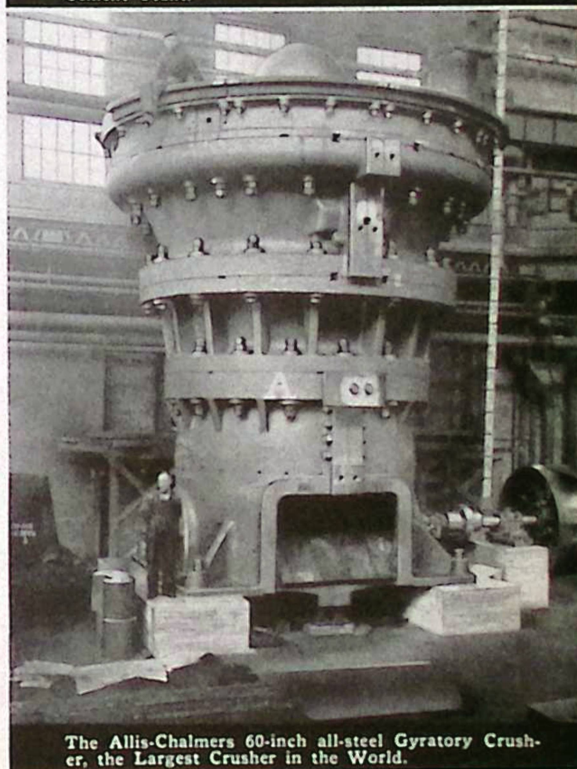
Cement Machinery

stone. All of the auxiliary equipment used with large breakers as above mentioned, such as secondary crushers, elevators, pan conveyors, grizzlies, stationary and multiroll and rotating and vibrating screens, skip hoists, etc., are manufactured by the Company in its own shops and as the Company also manufactures, on a large scale, power equipment of every description, it is in the unique position of being able to supply a completely equipped plant under one contract.

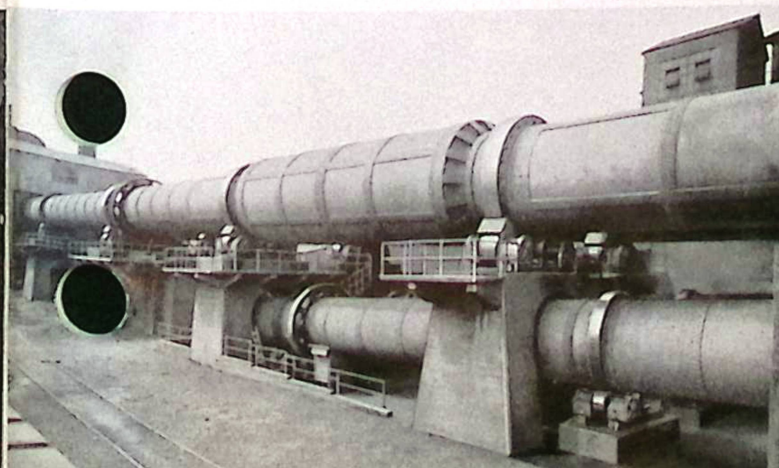
In acquiring the Gates Iron Works of Chicago, Allis-Chalmers absorbed this Company's large rock crushing and cement making machinery business. The cement industry grew from a production of less than a million barrels of cement in 1895 to a production of 170 million barrels during 1935. Many development which has been so large and so rapid, there naturally have been many changes and improvements. The Company has kept pace with these rapid developments and its line of cement making machinery today stands second to none for the economical manufacture of cement.

Allis-Chalmers built the largest single unit Cement Grinding Mill in the world. This huge mill requires 1500 horsepower to drive it and it is mounted on two of the largest roller bearings ever built. Each bearing is almost five feet in diameter and supports 175 tons.

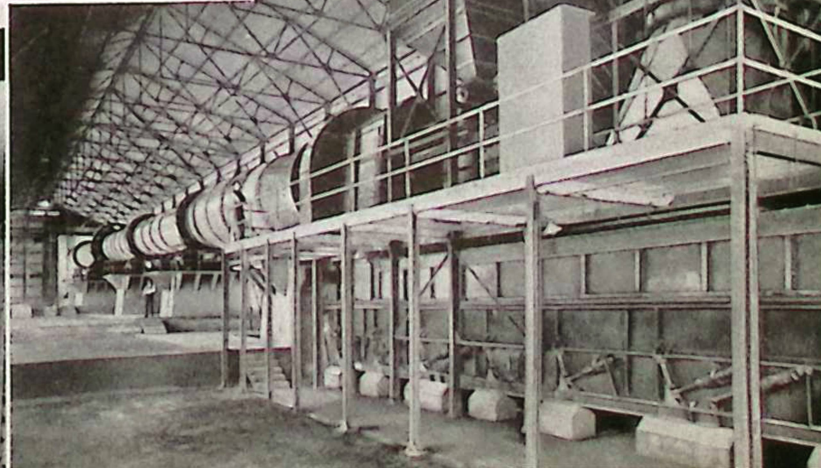
Practically every cement plant in the United States has some Allis-Chalmers equipment in it. Many plants at home and abroad have been completely designed and equipped by this Company. Reflection for a moment as to how largely cement and concrete have contributed to our present civilization will give some indication of the service which has been indirectly rendered by the Company in rock crushing and cement making machinery alone.



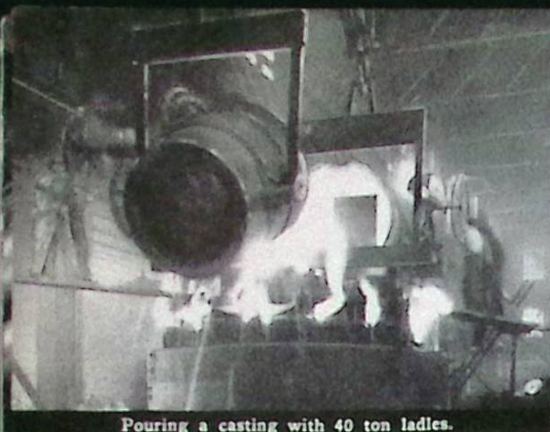
The Allis-Chalmers 60-inch all-steel Gyratory Crusher, the Largest Crusher in the World.



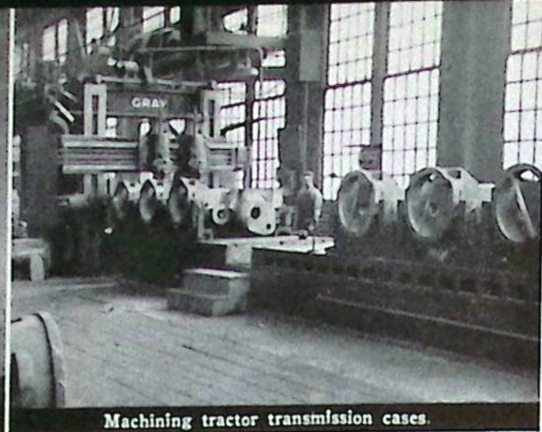
A 250' Rotary Kiln and a 90' Rotary Cooler operating in a modern Cement Plant.



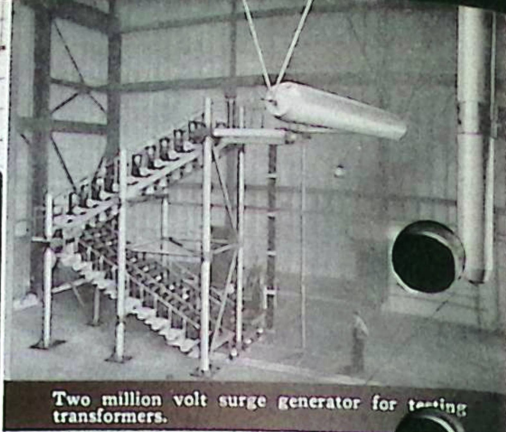
An A-C Wet Process Kiln and Air Quenching Clinker Cooler in a South African Cement Plant.



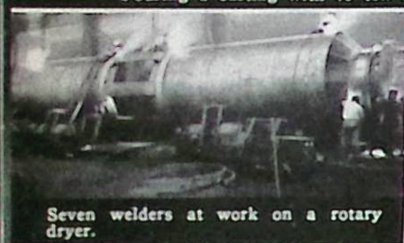
Pouring a casting with 40 ton ladles.



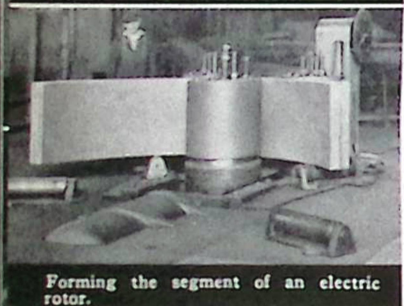
Machining tractor transmission cases.



Two million volt surge generator for testing transformers.



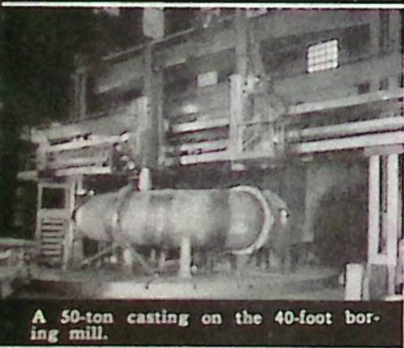
Seven welders at work on a rotary dryer.



Forming the segment of an electric rotor.



Shop set up of the Mt. Shasta Hydraulic Turbine.



A 50-ton casting on the 40-foot boring mill.

Plant Facilities

Even as the pioneers of old blazed a trail in seeking new lands or new opportunities, so the industrial pioneer of today is constantly seeking new materials and new methods. This pioneer of today is the modern research engineer.

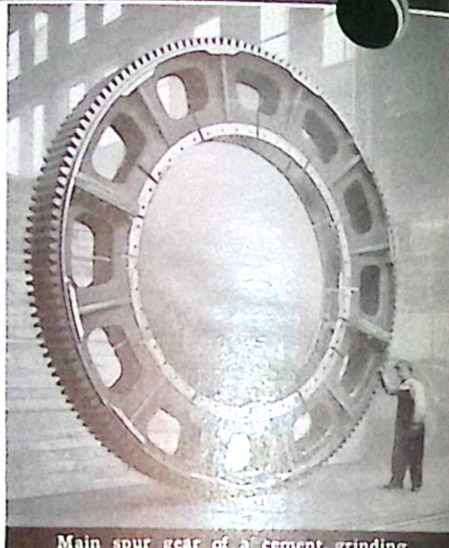
Generator rotors, the outside surface of which travels at a speed of 6 miles a minute, turbine blades whose tips travel at 600 miles per hour and parts that must withstand a temperature of 825 degrees have only been made possible by the most thorough study and a complete understanding of the numerous properties of various materials under special conditions.

All materials are given essential tests to see that they are up to specifications and are classified according to their intended use. Rigorous tests of finished machines and parts insure that they meet expected performance.

Important and newly completed facilities are those afforded by the Circuit Breaker Testing Laboratory, consisting of an outdoor concrete test chamber, with complete observation and control equipment, where switchgear and interrupting devices can be tested even to destruction. This research has already resulted in several important improvements in circuit breaker design.

Unusual experimental and test facilities are those afforded by the Hydraulic and Pump Laboratories, Electrical, Steam Turbine and Tractor Test Departments. Chemical, Physical and Mechanical Laboratories are in constant service for supervision of processes, test and experimental research in the Company's various activities.

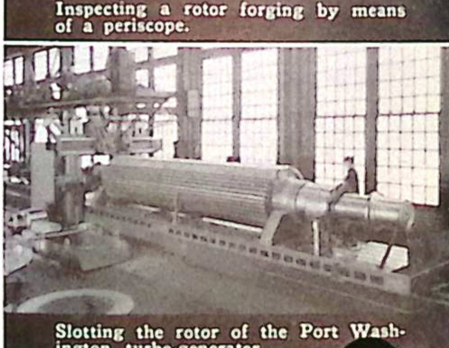
Special laboratories for mining, crushing, cement, flour, cereal milling, etc., enable analyses and studies to be made of customers' materials so that the proper equipment and methods can be recommended in service to these customers.



Main spur gear of a cement grinding mill, weight 54,000 lbs.



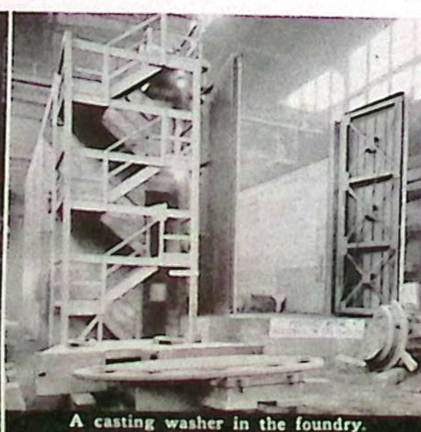
Inspecting a rotor forging by means of a periscope.



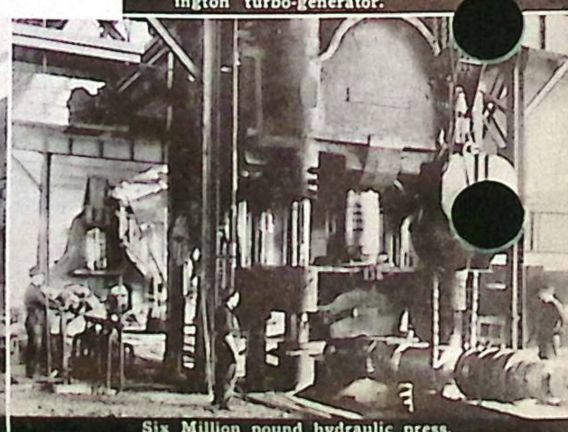
Slotting the rotor of the Port Washington turbo-generator.



Heating an ingot for forging.



A casting washer in the foundry.



Six Million pound hydraulic press.

The Allis-Chalmers Creed

You have seen in the preceding pages, the great diversity of products of this great manufacturing organization. Almost a hundred years of research and development were needed to solve the problems and obtain the knowledge necessary to build the kind of machinery that only Allis-Chalmers can produce. These 90 years of pioneering have built up a library of research and knowledge available only to Allis-Chalmers as a background for their products. Only through the expenditure of vast sums of money for research and experiment has the Company been able to obtain this knowledge.

Research engineers of the Crushing Division recently developed a high test cast iron having four or five times the strength of ordinary cast iron, but to test it a crusher frame weighing 48,000 lbs. was made and then broken under impact so that they might further study the properties of this new material.

Lightning is Public Enemy No. 1, as far as transformer failures are concerned. Allis-Chalmers transformers supplying current to transmission lines must not fail in service, so the Company, at great expense, installed a high voltage surge laboratory for testing transformers. Here "man-made lightning" at a potential of two million volts is applied to transformers and an accurate photographic record is made of each lightning flash, a flash lasting only a few millionths of a second. Special machines have been needed to perform special work in the shops and when they could not be bought, the Company designed them and built them. The largest boring mill in America is installed at the West Allis Works. The turn-table is 40 feet in diameter and has an area equal to that occupied by 15 or 16 average-sized automobiles. Allis-Chalmers helped introduce the Diesel engine to the United States, built the world's first Diesel tractor and went on to develop a better oil engine for tractor service.

Behind this research and pioneering spirit has ever been a single purpose — to build new and better machinery that will help make the world a better place to live in. The Tractor Division has carried on this pioneering spirit.

Allis-Chalmers builds tractors and farm and industrial machinery because they feel that these products have a definite place in their program of service to the world. As financiers came from the "House of Rothschild" so do the best farm and industrial power plants come from the "House of Power, Allis-Chalmers." Allis-Chalmers has supplied the world with big power machinery for almost a century.

You farmers, contractors, engineers and officials who own and operate Allis-Chalmers tractors and machinery — your needs have written the specifications for every Tractor Division product. Allis-Chalmers, The Pioneer, points and leads the way to BETTER LIVING, BETTER FARMING, BETTER CONSTRUCTION WORK, AND INCREASED PROFITS. No A-C product has failed to live up to these standards.

Directly or indirectly, machinery bearing the Allis-Chalmers name contributes daily to the health, comfort and well being of many millions of people — not only in America, but also in many foreign lands.

The food on your tables; the electrical energy that lights your home, speeds our industries and performs innumerable tasks; the fuel that heats our buildings, the clear water drawn from the faucet; the clothes we wear; the materials that go into the construction of our homes; the finished pavements over which we drive; the farms, factories and mines that provide thousands with employment — yes, even the powder your wife uses to take the shine off her nose — to all of these, Allis-Chalmers products of one kind or another contribute to a large degree.

Studying Nature's phenomena, distributing its bounty and utilizing its materials; harnessing the forces of air, earth, fire and water; giving employment to thousands that millions may enjoy conveniences — this is the Allis-Chalmers creed.

No matter who you are or where you live, Allis-Chalmers is making a definite contribution toward making this world a better place for you to live in.

More FACTS about the Company

Allis-Chalmers is one of the few companies in the world able to contract for a complete crushing, cement, mining, sawmill, flour mill, cereal or timber preserving plant.

Allis-Chalmers pioneered in designing and building centrifugal pumps, and has built some of the largest in the world.

Allis-Chalmers started the roller system of flour milling in the United States.

Allis-Chalmers introduced metal-clad safety switchgear into the United States.

Allis-Chalmers pioneered in the development of high pressure, high temperature steam turbines, using pressures to 1200 lbs. per square inch and temperatures to 850 degrees.

Allis-Chalmers is the only company in the world building complete hydro-electric units, turbines and generators, and builds all major power plant equipment from turbine to transformer for distributing the power.

Allis-Chalmers is the only company in the world building all three types of hydraulic turbines — Francis, propeller, and impulse.

Allis-Chalmers built the largest single unit Cement Grinding Mill in the world, requiring 1500 horsepower to drive and mounted on two of the largest roller bearings ever built, each bearing almost five feet in diameter and supporting 175 tons each.

Allis-Chalmers is the only manufacturer in the world that builds all of the machinery necessary in the production of wheat, from soil to flour.

90 per cent of all the flour milling machinery in the United States is made by Allis-Chalmers.

The total floor area of the West Allis Plant alone is 3,036,947 square feet; of the combined plants of the Company, 6,095,369 square feet.

Allis-Chalmers owns and maintains five steam locomotives for switching cars at the West Allis Plant.

Allis-Chalmers built the largest vertical triple expansion pumping engine in the world.

The cereal you had for breakfast was probably made on an Allis-Chalmers flaking mill.

The total ground area of the West Allis Plant is 155.58 acres; of the combined plants of the Company, 493 acres.

The largest machine tool of its kind in North America, a 40 foot boring mill, is located at the West Allis Works. The total cost of this machine including installation was \$189,000.

The heaviest casting produced in the A-C foundry weighed 120 tons.

There are 174 cranes in the West Allis Plant.

If all buildings of the West Allis Works were placed end to end, they would extend a distance of three miles.

Allis-Chalmers developed and introduced the pneumatic rubber-tired farm tractor, one of the greatest advancements ever made in farm tractor design.

The boiler horsepower of the West Allis Plant is 10,045.

The All-Crop Harvester has successfully harvested 70 different small seed and bean crops, including even rice and sunflower seed.

There are 21 miles of railway track in the West Allis Works.

Allis-Chalmers has built over five million horsepower in Corliss and drop piston valve steam engines.

Allis-Chalmers built the largest gas engines in the world with an output of 10,000 horsepower each.

Allis-Chalmers was one of the first companies to introduce the Diesel fuel oil engine to the United States and has built units ranging from 60 to 600 horsepower.

Allis-Chalmers was the pioneer in applying individual motors to the direct driving of machine tools.

Allis-Chalmers built the world's largest crusher, capable of crushing 2500 tons of copper ore per hour.

More FACTS about the Company

Allis-Chalmers is the third largest manufacturer of transformers in the world.

The largest Hydraulic Turbines in the world capable of developing 150,000 horsepower each were built for Boulder Dam by Allis-Chalmers, designed to last for 500 years.

The power plant at the West Allis Works supplies 27,000,000 kilowatt-hours of electricity and 800,000,000 gallons of water each year for operating the plant and uses about 70,000 tons of coal.

The Company maintains a line of special freight cars having capacities of over 100 tons each. These are among the largest commercial freight cars in the country.

Allis-Chalmers has produced over eleven million horsepower in steam power equipment — more than six million horsepower in hydraulic turbines — over half a million horsepower in gas engines, and over a million and a half horsepower in tractor engines.

90 Years of Pioneering

1847—Company formed to manufacture mill stones in Milwaukee.

1862—Approximate date of first Allis water wheel, built under Goodwin's patent.

1868—Edward P. Allis & Co., (predecessor of Allis-Chalmers) built its first steam engine, 100 h. p. for a flour mill.

1875—First Steam Driven Vertical Reciprocating Pumping Engine.

1878—The Reynolds Corliss Engine offered to the public. In the following seven years over 500 engines were built, averaging 24" x 48" in size.

1881—First High Economy Blowing Engines — employing metal valves where leather had previously been used.

1886—The first Vertical Triple Expansion Pumping Engine built for water works service in any country. Outstanding record for economy. (Still in service.)

1892—First Steam Engines in America for direct-connection to generators (500 h. p.).

1901—Built first "Manhattan Type" Angle Compound, Corliss Engines. World's record for size. (Still in service.)

1904—Built first Steam Turbine Unit.

1904—Actively entered Hydraulic Turbine field. World's records at Niagara Falls: In 1919, 37,500-h.p. (including generator) installed and followed in 1922 by 70,000-h.p. unit. 1934, four 115,000-h.p. turbines under contract for Boulder Canyon Project.

1908—World's Record Gas Engine Installation — 17 2,000-k.w. gas engine generator units, with 8 similar blowing engines, operating on blast furnace gas. Followed by other large installations.

1914—Allis-Chalmers builds first oil engines of the Diesel type.

1915—Allis-Chalmers enters the Tractor Field.

1922—Entered the field of large Steam Turbine Generator Units. Units built from 20,000 k. w. up to 125,000 k. w.

1927—Allis-Chalmers builds THE FIRST full Diesel track-type tractor EVER PLACED ON THE MARKET. It developed 90 drawbar horsepower and weighed 30,000 lbs.

1932—Allis-Chalmers introduces for the first time in history the pneumatic rubber-tired fast farm tractor. (Allis-Chalmers tractors hold all official speed records, including the world's record of 67.8 m. p. h.).

1935—Allis-Chalmers announces the new "KO" and "LO" Controlled Ignition oil engines, culminating over twenty-one years of intensive study of engines that will burn cheaper grades of Diesel oils.

Allis-Chalmers Manufacturing Company

GENERAL OFFICES



MILWAUKEE, WIS.

MANUFACTURING PLANTS

West Allis, Wisconsin — Norwood, Ohio — Pittsburgh, Pennsylvania — Boston, Mass.
Springfield, Illinois — La Crosse, Wisconsin — La Porte, Indiana

TRACTOR DIVISION BRANCHES

Aberdeen, South Dakota	Dallas, Texas	Kansas City, Mo.	Minot, North Dakota	Sidney, Nebraska
Amarillo, Texas	Des Moines, Iowa	La Crosse, Wis.	Oakland, Calif.	Sioux City, Iowa
Atlanta, Georgia	Dodge City, Kansas	La Porte, Ind.	Omaha, Nebr.	Spokane, Wash.
Billings, Mont.	Edmonton, Alta., Canada	London, England	Paris, France	Springfield, Ill.
Buenos Aires, Argentina	Fargo, N. D.	Los Angeles, Calif.	Peoria, Ill.	St. Louis, Mo.
Calgary, Alberta, Can.	Great Falls, Montana	Madison, Wis.	Pocatello, Idaho	Syracuse, N. Y.
Columbus, Ohio	Harrisburg, Pa.	Memphis, Tenn.	Portland, Oregon	Toronto, Ontario
	Indianapolis, Ind.	Minneapolis, Minn.	Regina, Sask.	Wichita, Kans.
			Saskatoon, Sask.	Winnipeg, Manitoba

DISTRICT OFFICES

Atlanta, Ga.	Healey Bldg.	Memphis, Tenn.	387 So. Main St.
Baltimore, Md.	Baltimore Trust Bldg.	Milwaukee, Wis.	West Allis Works
Birmingham, Ala.	Webb Crawford Bldg.	Minneapolis, Minn.	Foshay Tower
Boston, Mass.	State Mutual Bldg.	New Haven, Conn.	42 Church St.
Buffalo, N. Y.	Liberty Bank Bldg.	New Orleans, La.	Canal Bank Bldg.
Charlotte, N. C.	Johnston Bldg.	New York, N. Y.	50 Church St.
Chattanooga, Tenn.	Tennessee Electric Power Bldg.	Philadelphia, Pa.	Broad Street Station Bldg.
Chicago, Ill.	135 South La Salle St.	Phoenix, Ariz.	Luhrs Tower
Cincinnati, O.	Chamber of Commerce Bldg.	Pittsburgh, Pa.	Koppers Bldg.
Cleveland, O.	Guarantee Title Bldg.	Portland, Ore.	1311 S. E. Union Bldg.
Dallas, Tex.	Santa Fe Bldg.	Richmond, Va.	Electric Bldg.
Davenport, Iowa	311 Central Office Bldg.	St. Louis, Mo.	Railway Exchange Bldg.
Denver, Colo.	Continental Oil Bldg.	Salt Lake City, Utah	Kearns Bldg.
Detroit, Mich.	Ford Bldg.	San Antonio, Texas	Frost National Bank Bldg.
Duluth, Minn.	Bradley Bldg.	San Francisco, Calif.	Rialto Bldg.
El Paso, Texas	607-608 Mills Bldg.	Seattle, Wash.	Henry Bldg.
Grand Rapids, Mich.	Association of Commerce Bldg.	Tampa, Fla.	401 S. Morgan St.
Houston, Texas	Shell Bldg.	Toledo, O.	2nd National Bank Bldg.
Indianapolis, Ind.	Merchants Bank Bldg.	Tulsa, Okla.	18 North Guthrie St.
Jackson, Mich.	Consumers Power Co. Bldg.	Washington, D. C.	Southern Bldg.
Kansas City, Mo.	Waldheim Bldg.	Wilkes-Barre, Pa.	Coal Exchange Bldg.
Los Angeles, Calif.	Rowan Bldg.		

FOREIGN DISTRICT OFFICES

Buenos Aires, Argentina—Allis-Chalmers Manufacturing Company (Argentina)	Calle Peru 571-583	Oruro, Bolivia	Esq. Sucre y Linares, Casilla 214
London, England - 728 Salisbury House, London Wall E. C. 2		Santiago, Chile	Sociedad Manufacturera Allis-Chalmers, Edificio Mutual de la Armada, Casilla 48-D.

CANADIAN REPRESENTATIVE

Canadian Allis-Chalmers, Limited, Toronto, Ontario.

FOREIGN SALES AGENCIES

Brazil, Sao Paulo	Sociedade Technica e Commercial, Ltda.	(All Products except Tractors)
China, Shanghai, Tientsin	American Trading Co., 96 Wall St., N. Y.	(All Products except Tractors)
Cuba, Havana	Distributors S. A. Apartado 2049	(All Products except Tractors)
Hawaii, Honolulu	Honolulu Iron Works Co.	(All Products except Corliss Eng. for Mill Drives and Oil Engines)
Italy, Turin	Mario Axerio, Via Perrone 4	(All Products except Texrope Drives, Tractors and Agricultural Equipment)
Japan: Kobe, Tokyo, Yokohama	American Trading Co., 96 Wall St., N. Y.	(All Products except Tractors)
Mexico, Mexico City	R. E. Briggs Co., S. A., Gante No. 8	(All Products except Tractors)
Mexico, Mexico City	Electro-Materiales, S. A.	(Small Electrical Apparatus)
Netherlands, The Hague	Hollandisch Ingenieurs Bureau	(All Products except Tractors)
New Zealand, Christchurch	A. R. Harris Co., Ltd.	(Electrical Apparatus and Texrope)
Philippine Islands, Manila	Earnshaws Dock & Honolulu Iron Works	(All Products)
South Africa, Johannesburg	Edward L. Bateman, (Pty.) P. O. Box 1671	(All Products except Tractors)

TRACTOR DIVISION DEALERS THROUGHOUT THE WORLD.