

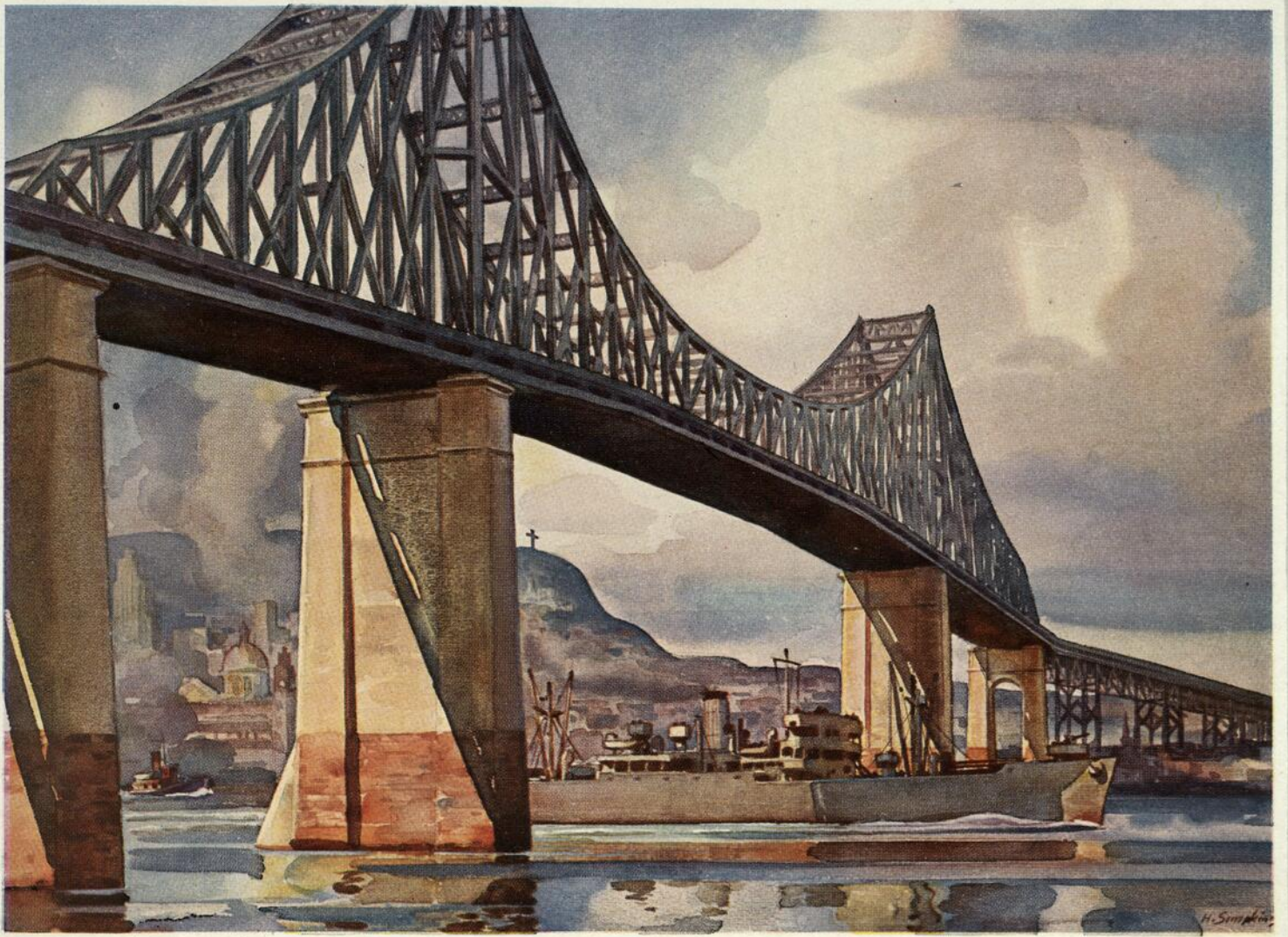
BUILDERS IN STEEL

DOMINION BRIDGE COMPANY LIMITED



*A*ctivities of the...

HEAD OFFICE AND MAIN PLANT AT

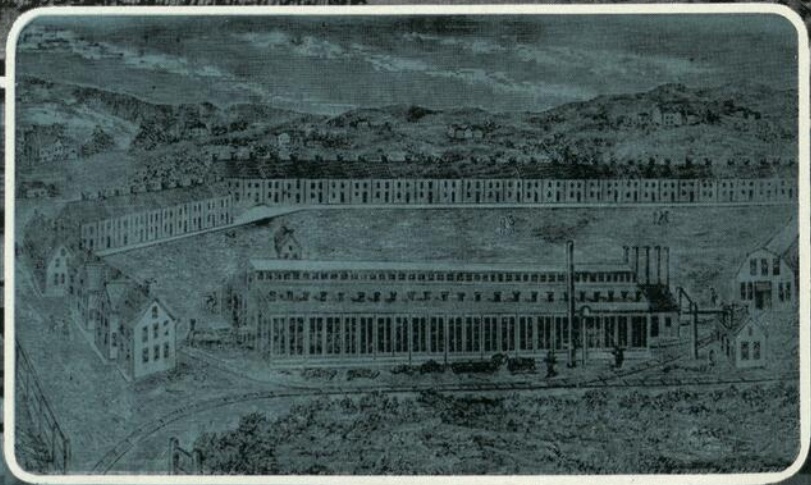
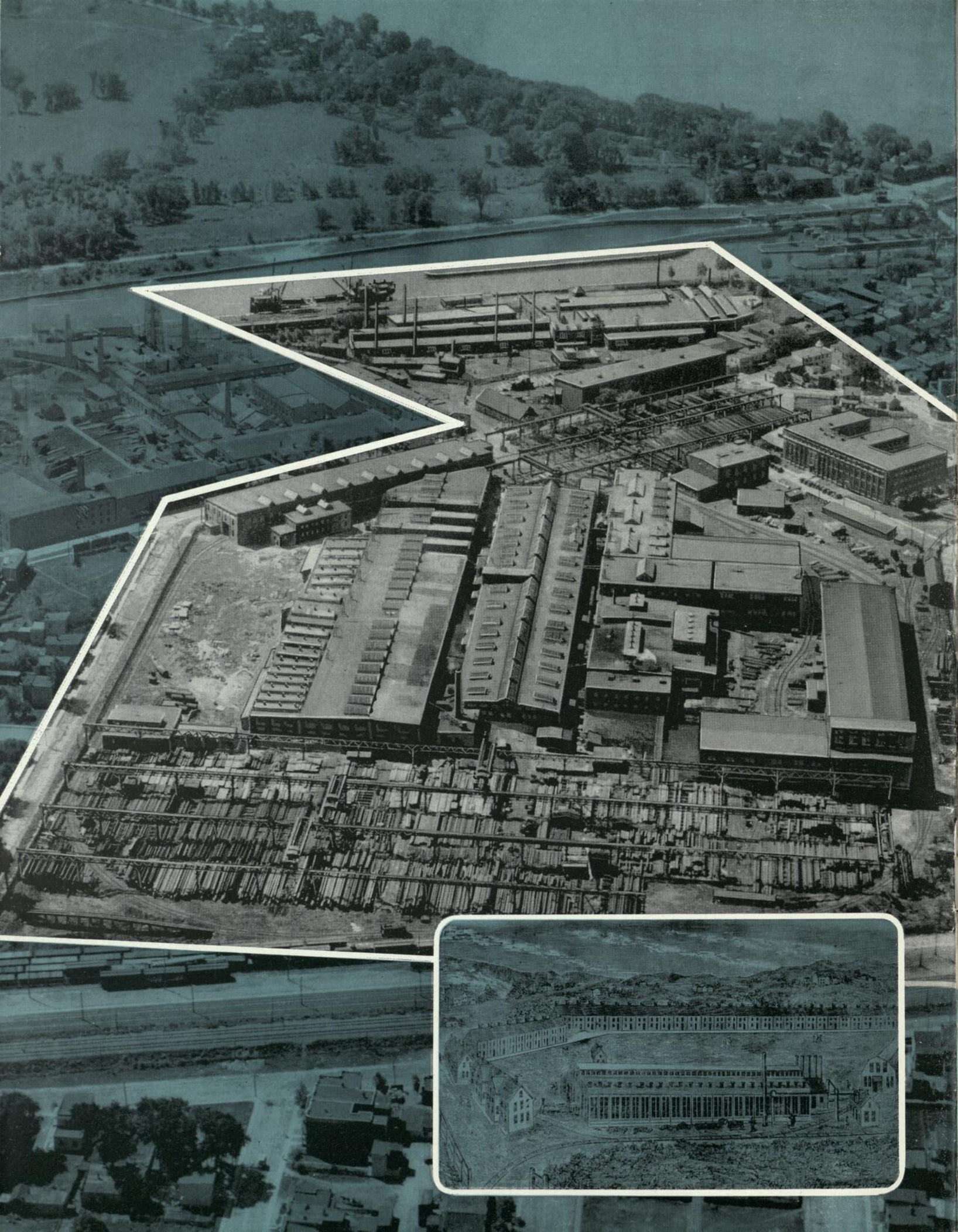


The Jacques Cartier Bridge and a 10,000 ton cargo ship; in both cases the steelwork was fabricated and erected by the Company.

DOMINION BRIDGE

COMPANY LIMITED

LACHINE, P. Q. (NEAR MONTREAL) CANADA



Passing on the Tradition



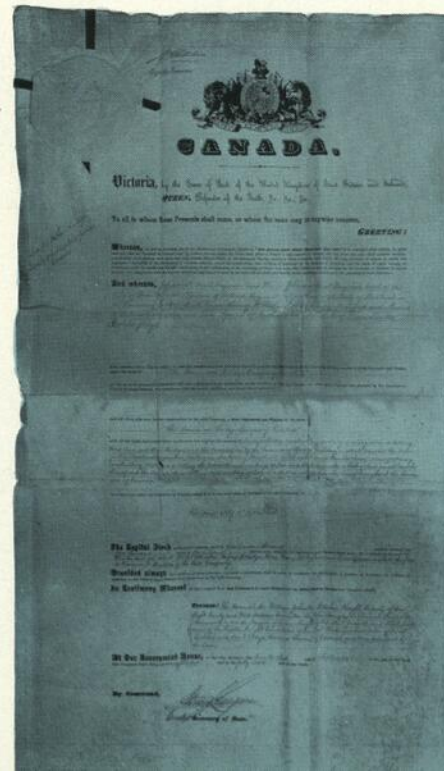
THE illustration which heads this page symbolizes a Dominion Bridge tradition, for, since the foundation of the Company each succeeding generation has carried on the ideals of sound engineering and workmanship laid down in 1882. Frequently there has been a still closer link, as son has followed father, and there are today many employees whose fathers, grandfathers and even great-grandfathers have all worked in Dominion Bridge plants.

Successful enterprises are not maintained on tradition alone, and the Company has always been in the forefront in technical development and research. Many engineering techniques now in common use have been pioneered in Canada by the Dominion Bridge Company. Its long established system of developing its employees for advancement and its apprenticeship plan are regarded as models in the industry.

In the early years of the Company's existence steel bridges were among the greatest needs of the rapidly growing Dominion. The Canadian Pacific Railway was being built, Western Canada was being opened up and in all this surge of development the Company played a leading part, supplying and erecting many of the largest bridges. Dominion Bridge has grown with Canada, developing in the course of time a large number of heavy engineering products differing vastly in character from the steel spans which gave the Company its name. Steel frames for buildings were a logical development after bridges; then came cranes, hydraulic regulating gates, pressure vessels, boilers, steam generating plants and many other requirements of the growing nation.

The following pages give some idea of the comprehensive range of engineering projects undertaken by the Company. Its name has, in fact, become known far beyond the Dominion of Canada for engineering resourcefulness as well as for manufacturing resources, both of which have been greatly enhanced by new methods and new ideas developed during the stress of war production.

And now Dominion Bridge stands ready to solve the problems of a new era and to serve commerce and industry as never before in its 63 years of achievement.



Left: Main plant at Lachine to-day, covering an area of 47 acres. Inset, in 1884.

Right: The original charter of the Company, dated September 23, 1882.

1886 First C.P.R. Lachine Bridge near Montreal. At the time it was built this was the largest continuous span in the world. (1,356 ft.)



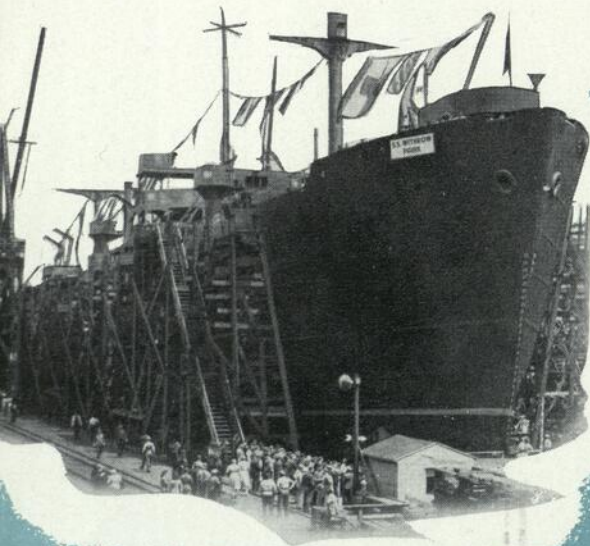
Some Milestones

XIX IN THE HISTORY OF THE DOMINION

miles
to Lachine

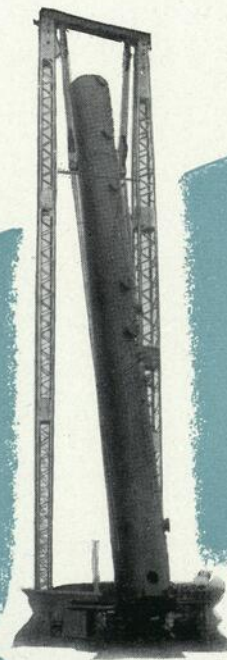
THE pictures on this page show a few of the Company's major undertakings during the past 63 years and also illustrate its development. Some would not appear remarkable today, though they were certainly bold pieces of engineering design at the time of their construction. Others still rank amongst the major engineering feats of the world.

Page 4



SECOND WORLD WAR

In the second world war the Company extended its resources to the utmost for the war effort. An impressive example of war production was fabrication of cargo ships.



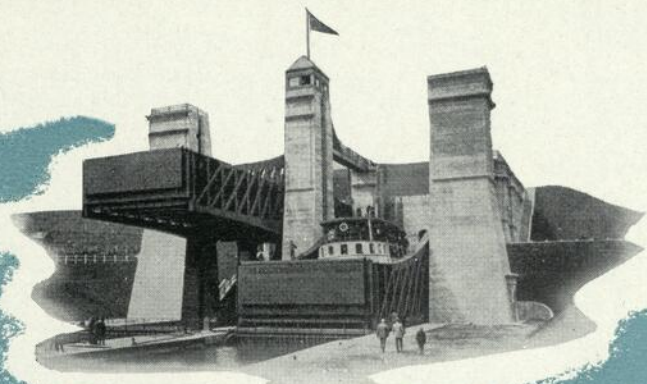
1934 A large welded pressure vessel. This year marked an expansion of facilities to undertake the manufacture of large refinery and other vessels.



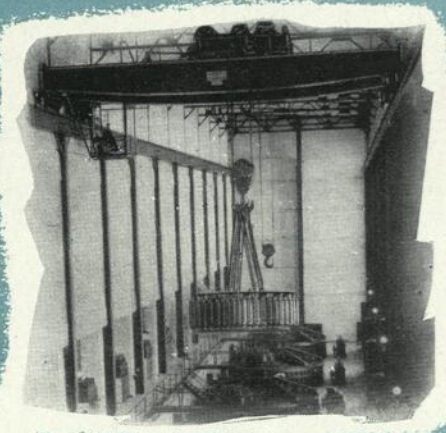
1929 The Sun Life Building, Montreal, largest office building in the British Empire. The steelwork weighs 20,000 tons.



1899 Peterborough lift lock, Peterborough, Ontario, on the Trent Canal. The lift of 65 feet is the one of the highest in the world.



BRIDGE COMPANY



1913 One of the first large power house cranes built by the Company. This crane, of 150 tons capacity, was installed at the Laurentide Company's plant at Grand'Mere, now owned by The Shawinigan Water & Power Co. Smaller cranes had been built for many years previously.



1915 One of the first large hydro-electric regulating gate installations, built for the Laurentide Co., (now owned by The Shawinigan Water & Power Company.) Many smaller installations had been undertaken previously.

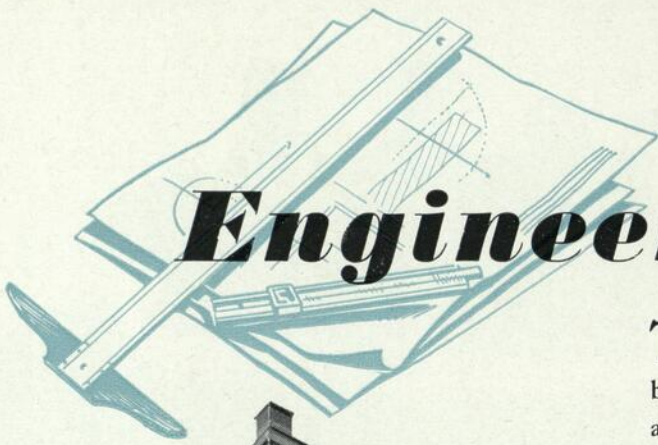


FIRST WORLD WAR

During the first world war, as in World war II, Dominion Bridge built Scotch Marine Boilers for cargo vessels.



1912-1917 The Quebec Bridge—Largest railway cantilever bridge in the world, spanning the St. Lawrence River near Quebec City. Length between main piers: 1800 feet. Total weight of steel: 65,000 tons.



Engineering Design

THE start of any engineering project is on the drawing board and Dominion Bridge possesses one of the largest and most experienced groups of designing engineers and skilled draughtsmen of any comparable organization in North America. This gives some idea of the background behind every Dominion Bridge product and of the engineering service offered.

The illustrations show four only of the many engineering offices in the Company.

Left: Main engineering and general offices of the Company.

Page 6



Mechanical engineering drawing office.

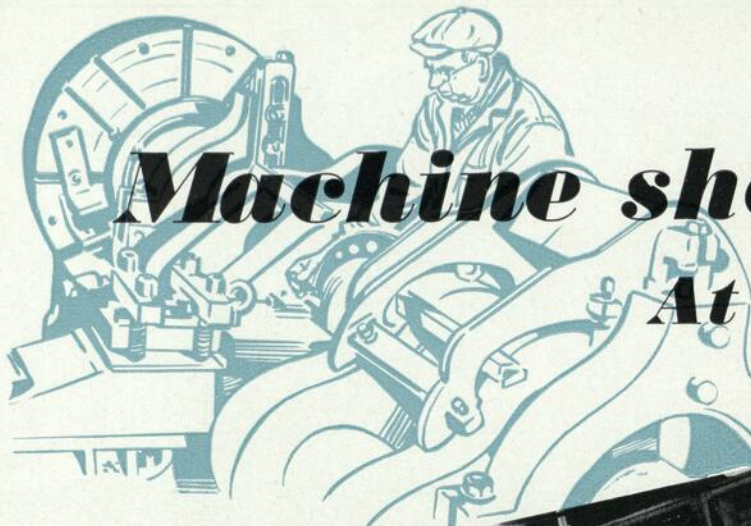


Above: Part of the plate and boiler design department.

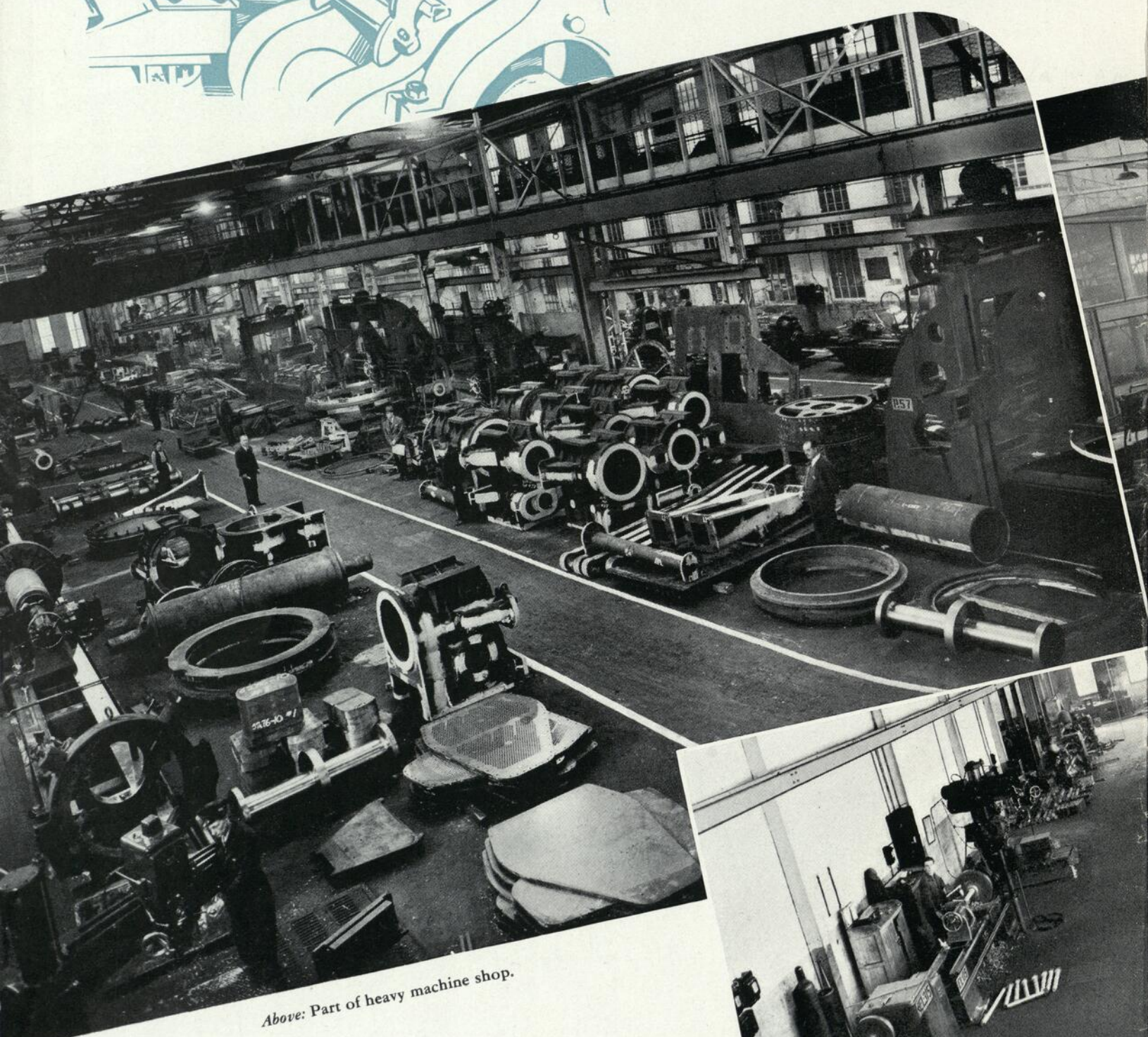
Right: Structural drawing office.



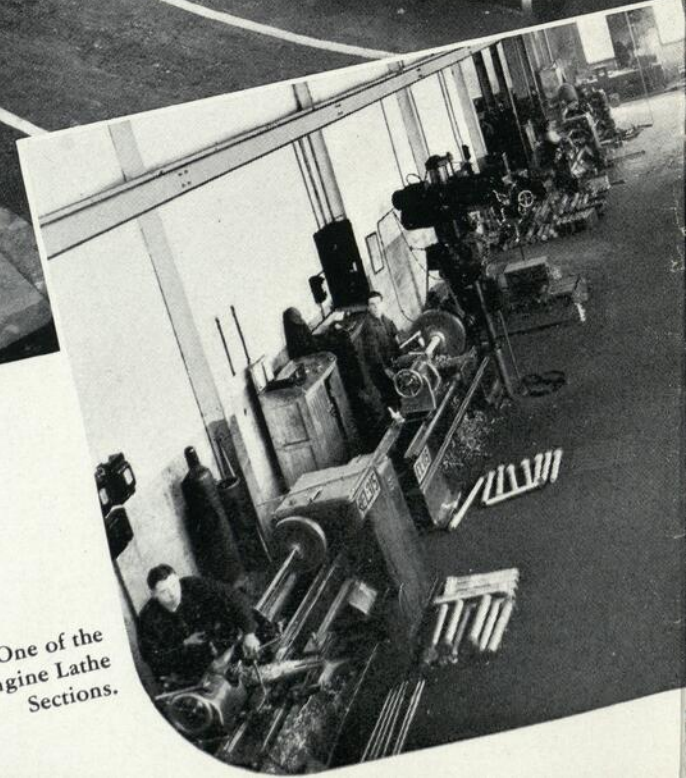
Left: Mechanical and structural engineering design offices.



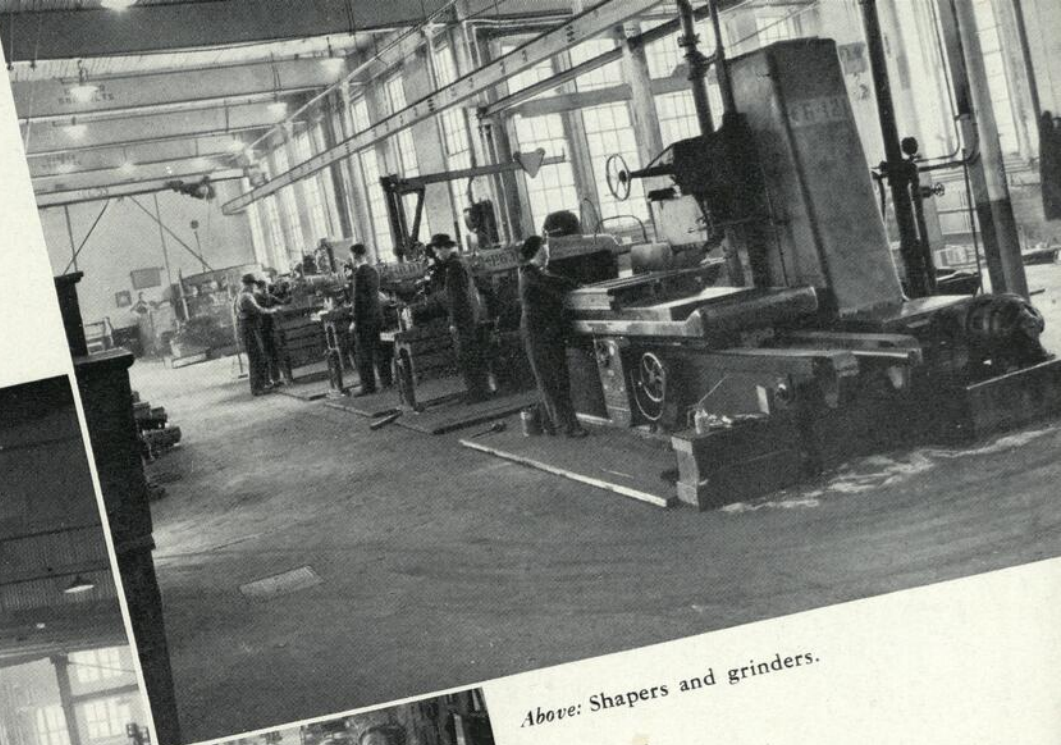
Machine shops *At Lachine Plant*



Above: Part of heavy machine shop.



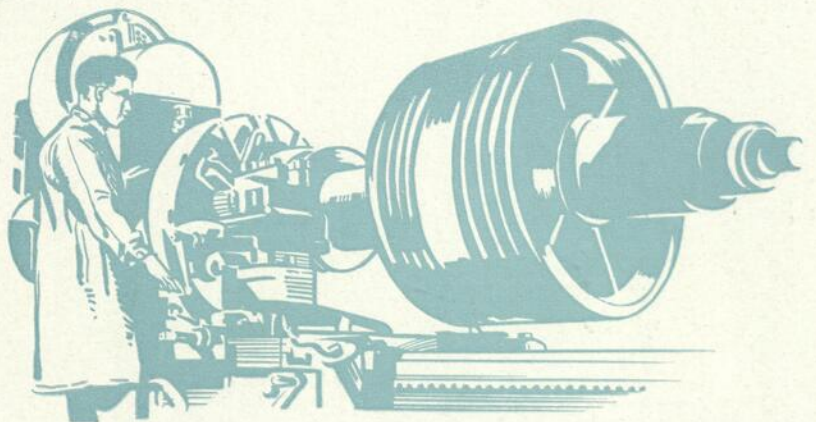
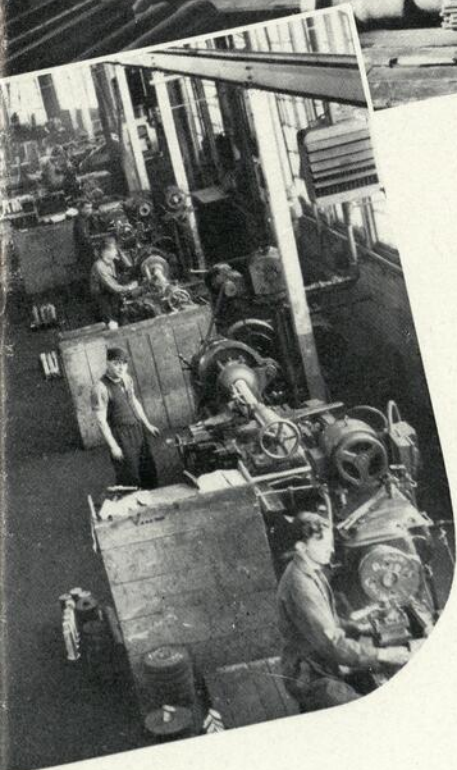
*One of the
Engine Lathe
Sections.*



Above: Shapers and grinders.

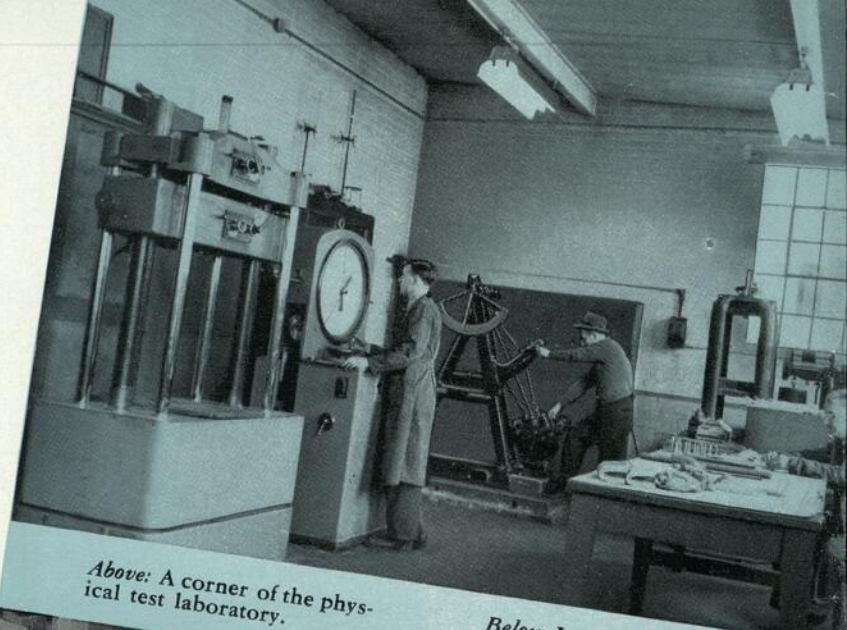
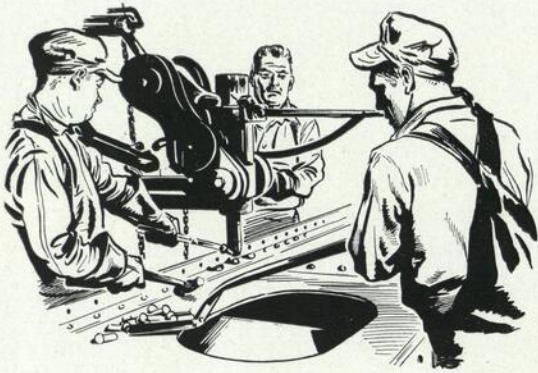


Left: One of the Engine lathe departments for machining of small components.



SPACE only permits these four views of our extensive machine shops at Lachine. They are fully equipped with modern machine tools of all types and sizes. Adaptability is a special feature of the organization of our mechanical division which has the necessary flexibility to undertake a great variety of work.

More Shop Views

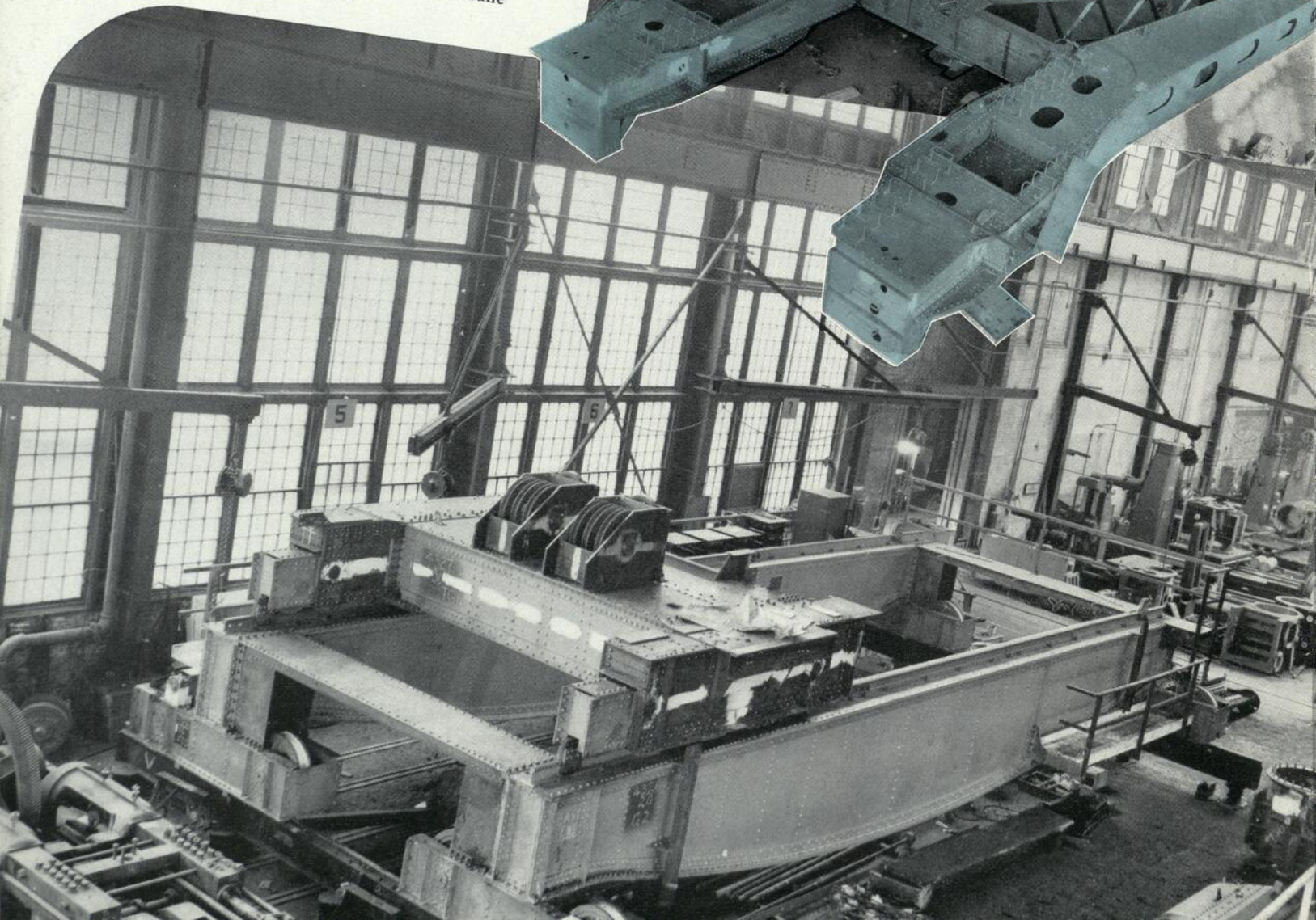


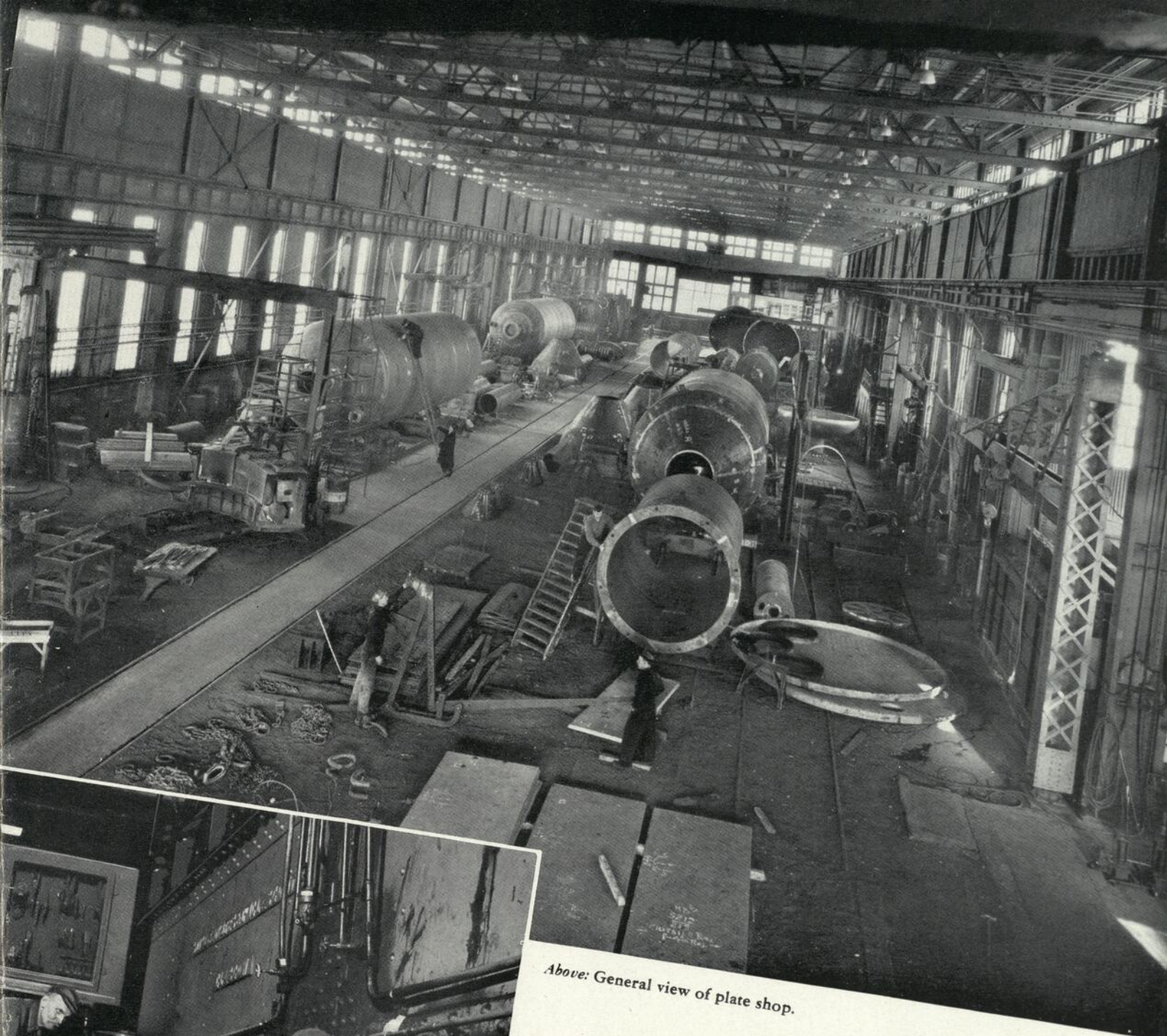
Above: A corner of the physical test laboratory.

Below: Large bridge member under construction.

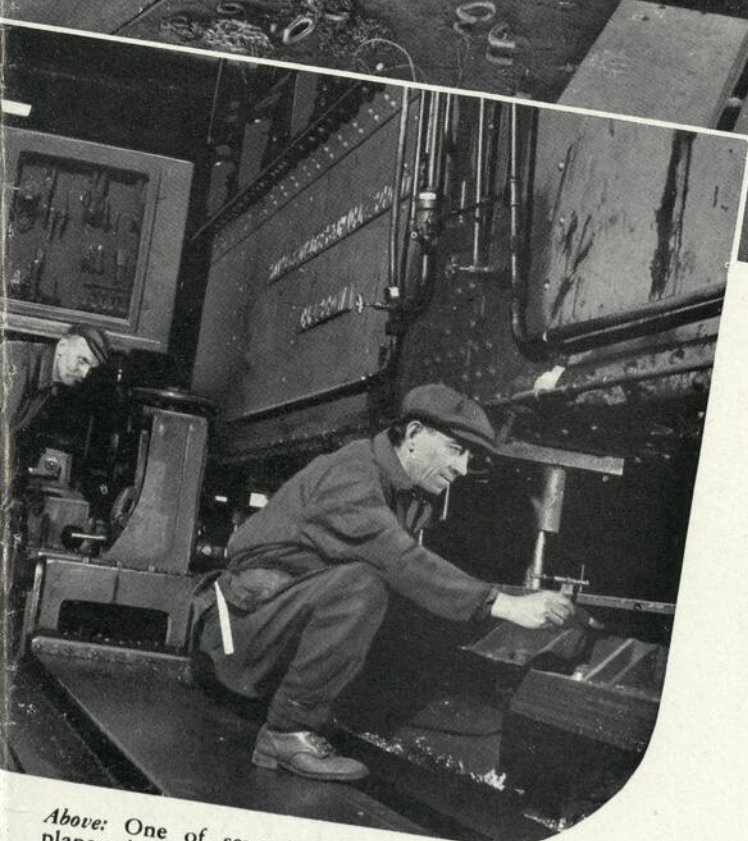
Page 10

Below: 225-ton power house crane being assembled.





Above: General view of plate shop.



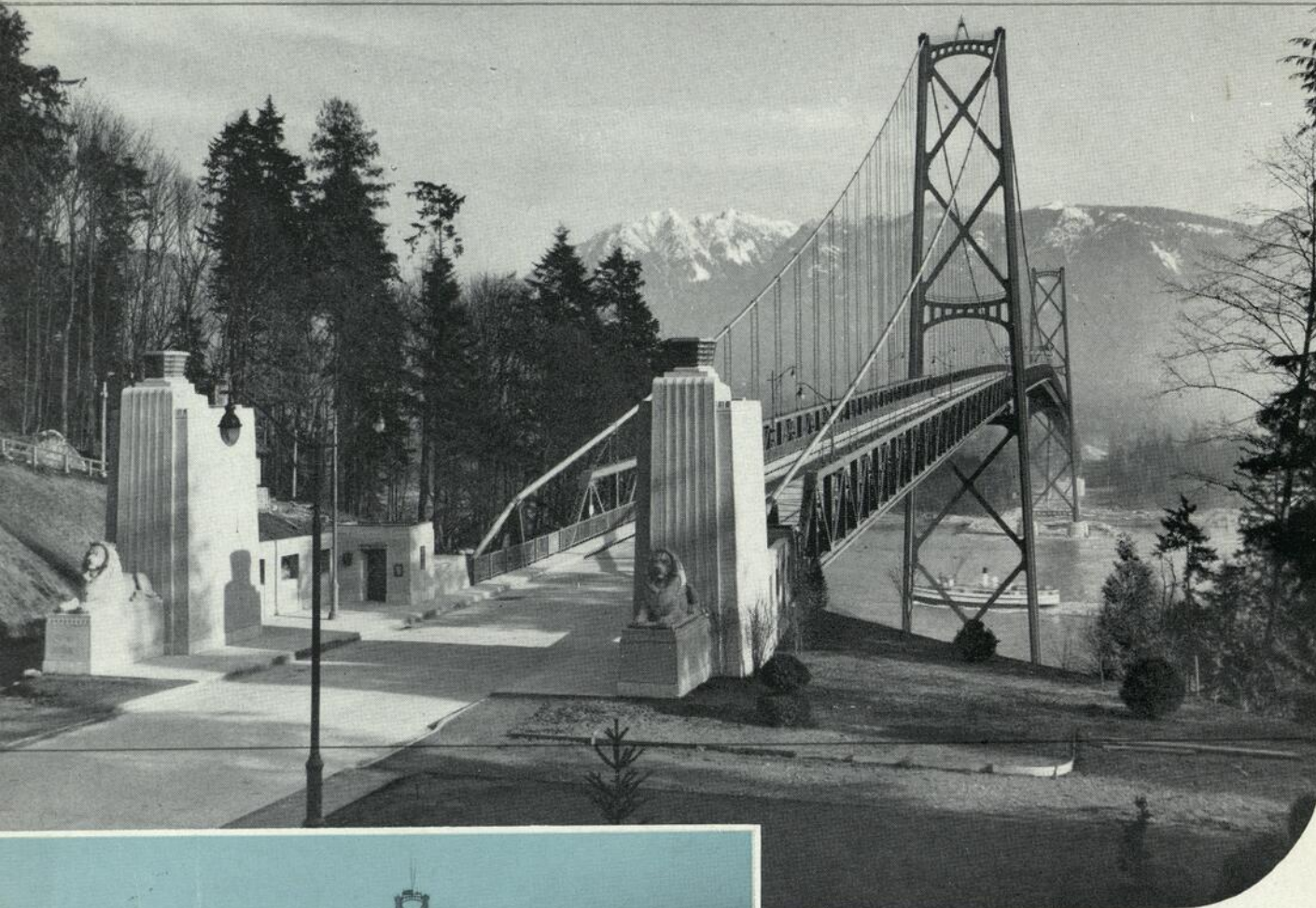
Above: One of several large edge planers in the structural department.



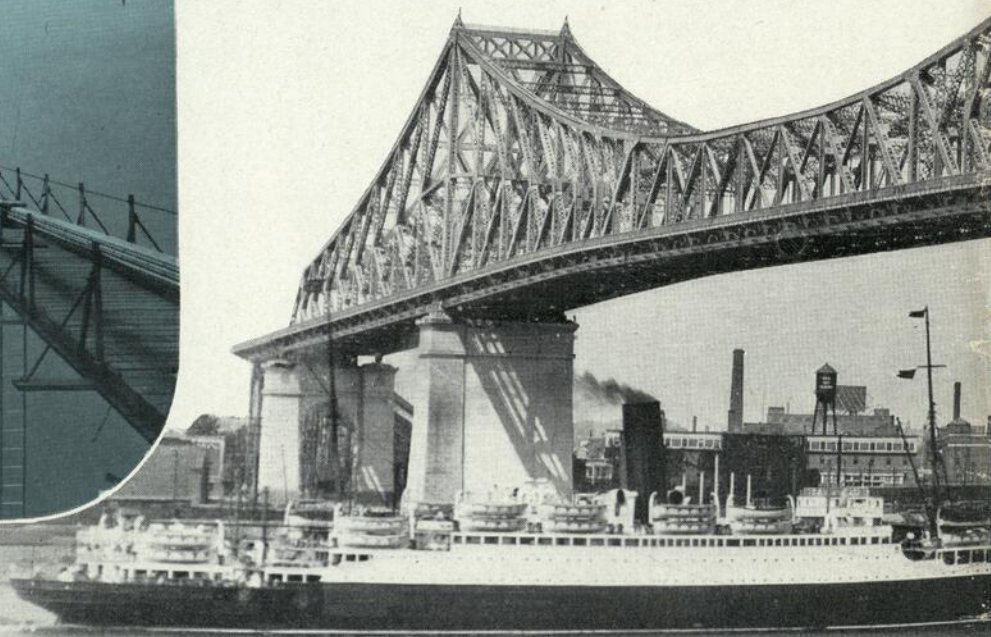
APPRENTICE TRAINING: In classes like this, young workers are trained for key positions in the departments in which they have specialised.

**Sciences
Et Citoyennetés**
31,861, RUE PASTEUR
MONTREAL 12

longueur: 4'14"
Zinc 100
changer 8%



Above and Left: THE LIONS GATE BRIDGE, Vancouver, largest suspension bridge in the British Empire and one of the finest in the world. Total length with approaches: 5978 feet. Main span: 1550 feet. Minimum clearance at high water: 200 feet.



Above: LIONS GATE BRIDGE in course of erection.

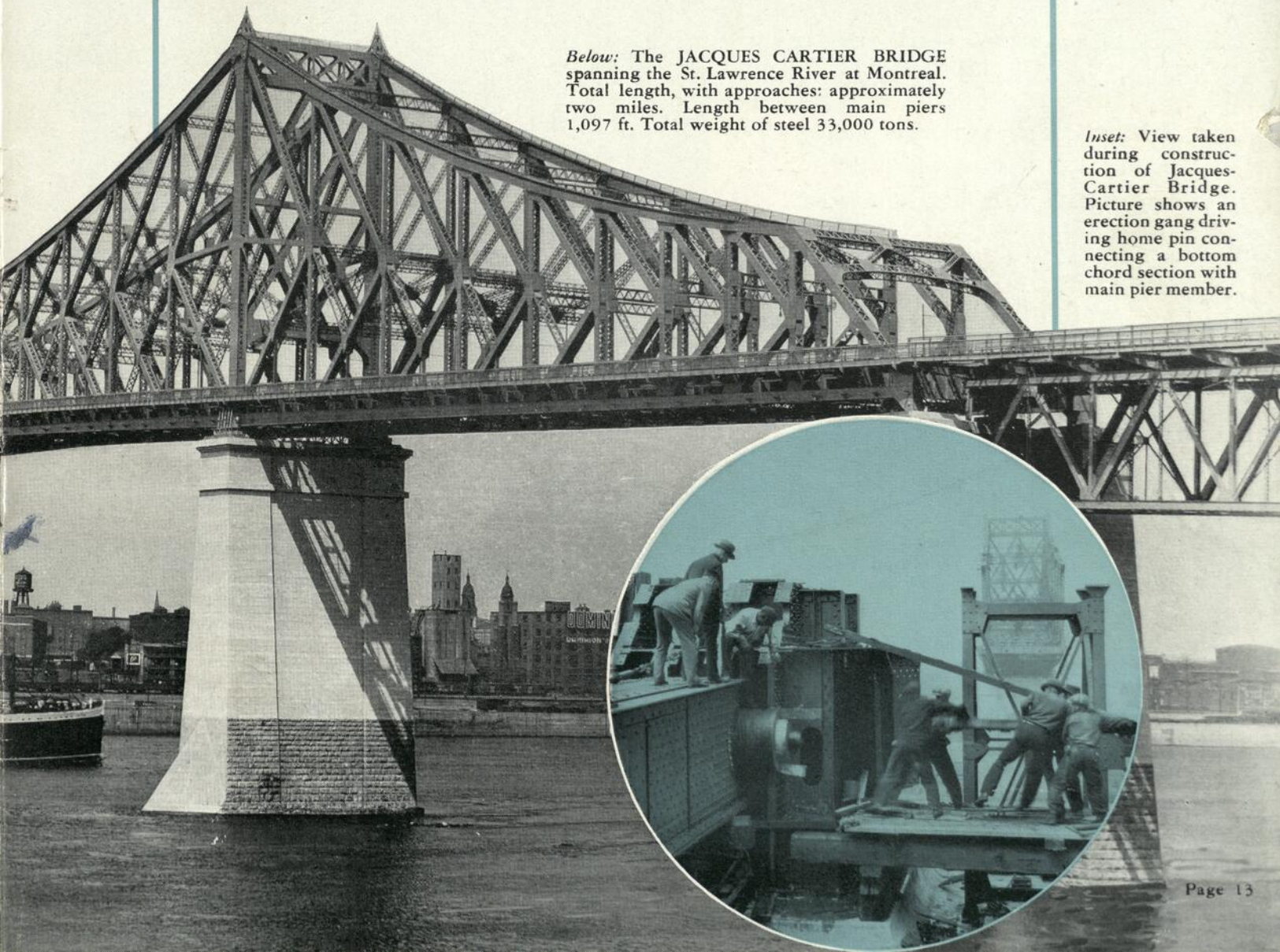
Bridges

IN the course of its long history, the Dominion Bridge Company has built hundreds of bridges, large and small, and designed to suit every conceivable condition and circumstance. It has constructed highway and railway bridges with beam spans, girder spans, truss spans, arches, and of the cantilever and suspension types. Dominion Bridge was the pioneer of welded bridge construction in this country and has developed designs of continuous welded girders which offer considerable economies.

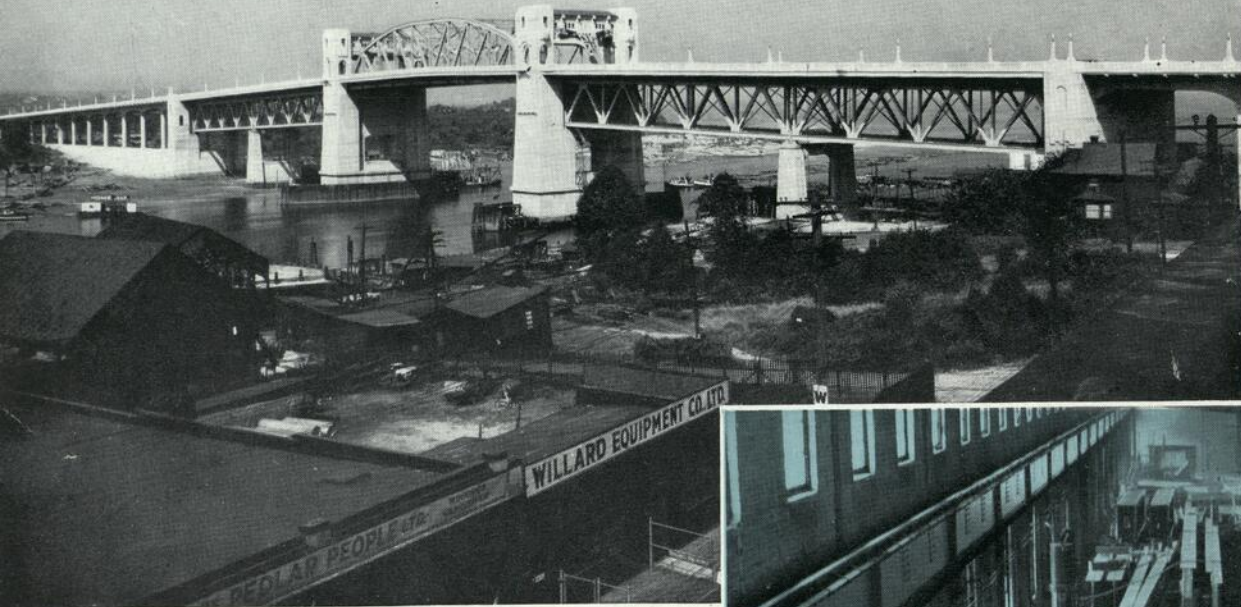
As in the design, so in the erection of bridges and other steel structures, many problems are involved. Dominion Bridge Company has developed an erection department staffed by engineers who are widely experienced in the solution of difficulties of site, weather and urgency. This wealth of experience goes with every bridge erected by Dominion Bridge.

Below: The JACQUES CARTIER BRIDGE spanning the St. Lawrence River at Montreal. Total length, with approaches: approximately two miles. Length between main piers 1,097 ft. Total weight of steel 33,000 tons.

Inset: View taken during construction of Jacques-Cartier Bridge. Picture shows an erection gang driving home pin connecting a bottom chord section with main pier member.



Highway Bridges

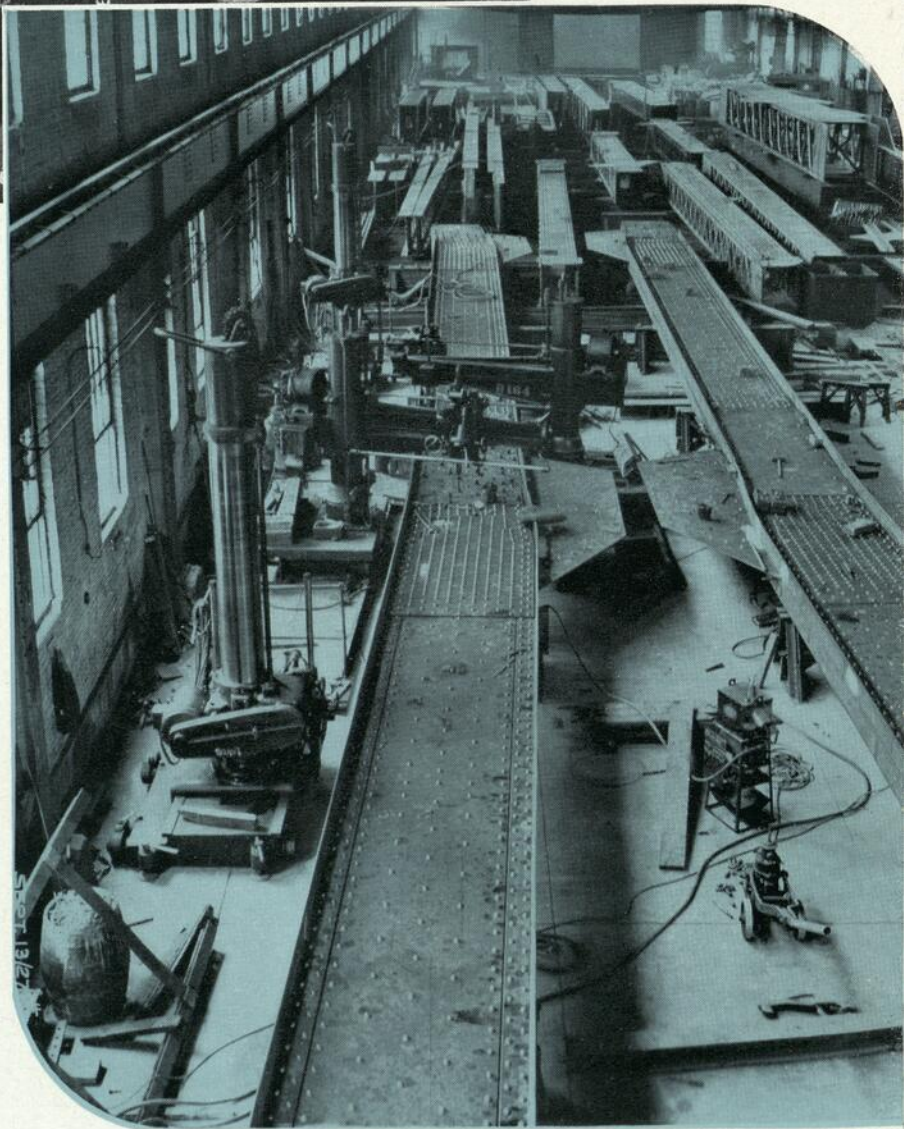


THE two highway-bridges shown on this page illustrate widely different designs, each built to suit special circumstances.

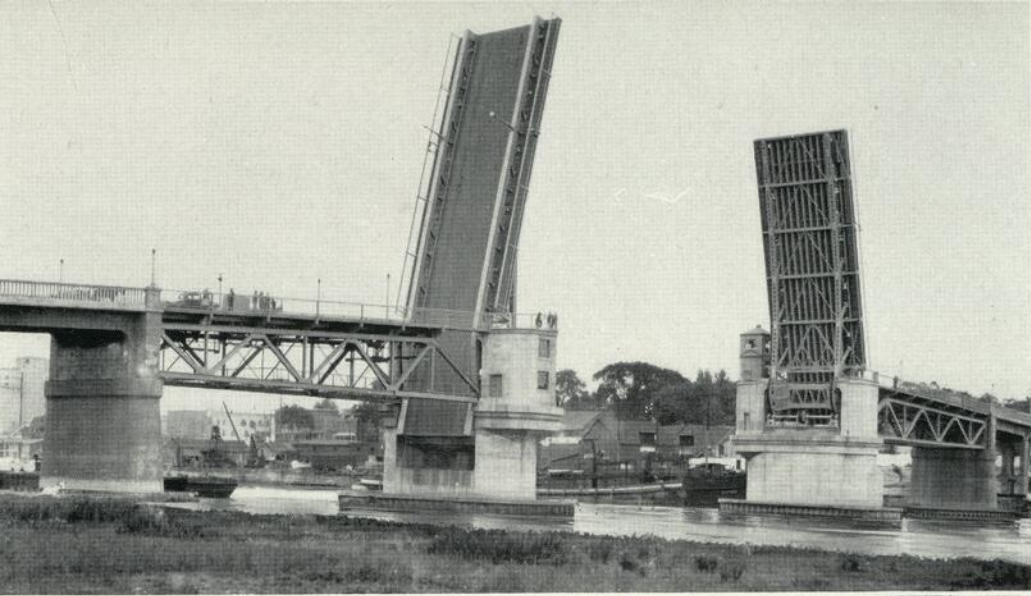


Top: Burrard St. Bridge, Vancouver, British Columbia.

Above: Bridge through Tantramar Marshes, Nova Scotia.



Above: Part of the structural department of our Lachine plant showing large bridge members undergoing fabrication.



Left: BASCULE BRIDGE at Sorel, Quebec. A design of considerable aesthetic value, the counterweights in this highway bridge are completely hidden.

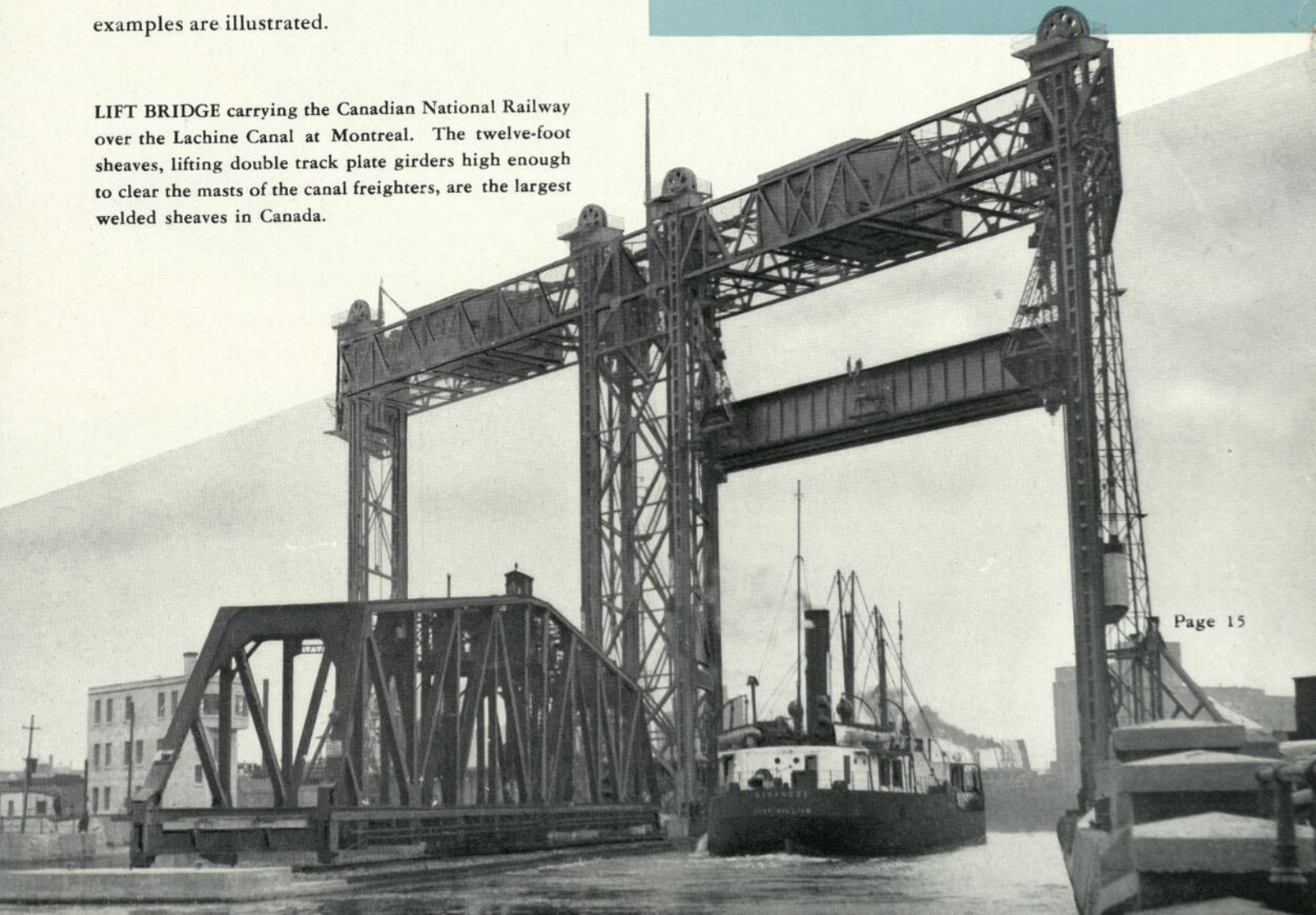
Below: SWING BRIDGE at Kildonan, Manitoba carrying double tracks of the C. P. Railway over the Red River.

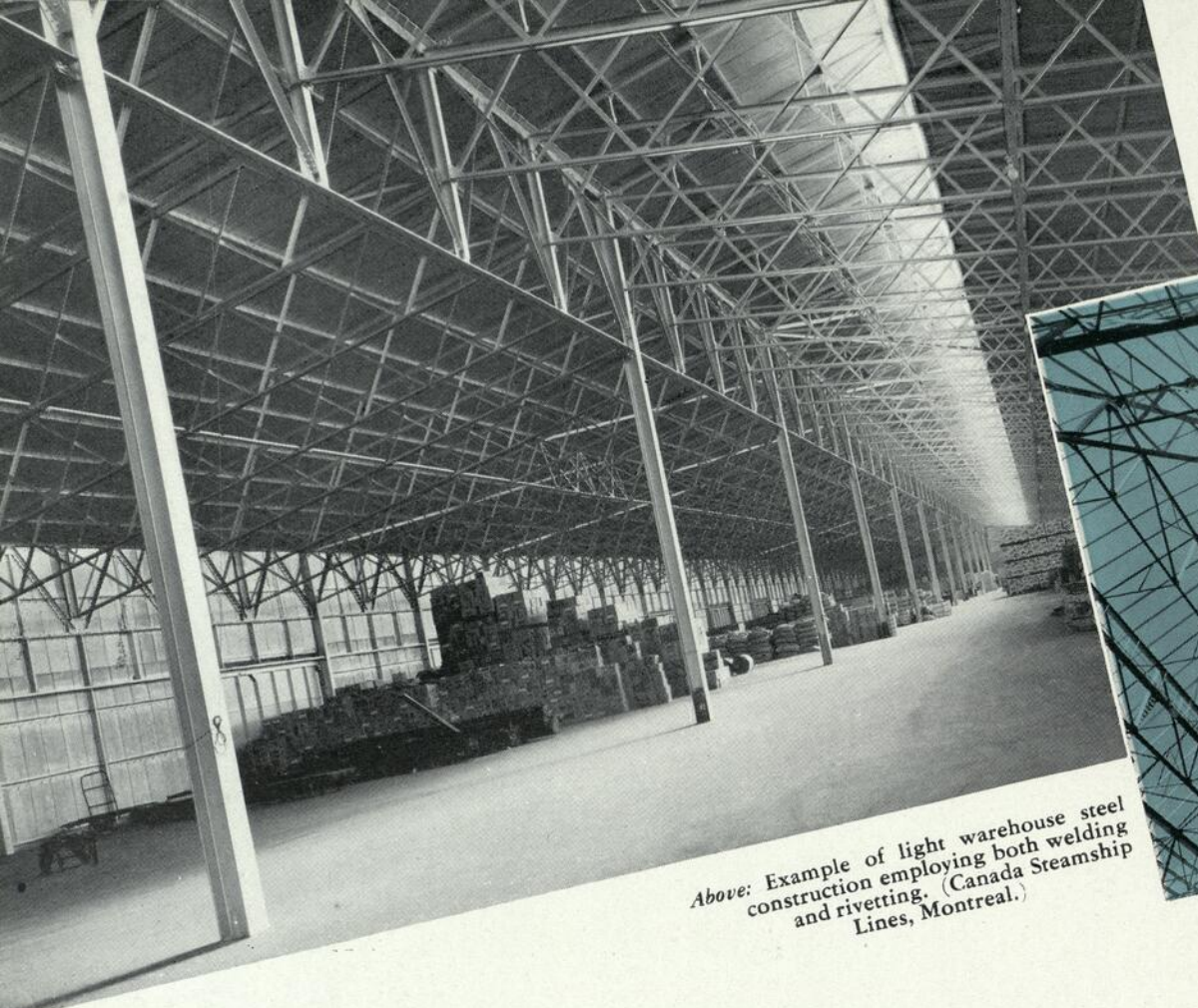


WITH its large mechanical engineering department working in close collaboration with its structural designers all under one roof, the Dominion Bridge Company is particularly well equipped to undertake the design and fabrication of all types of movable bridges. Three typical examples are illustrated.

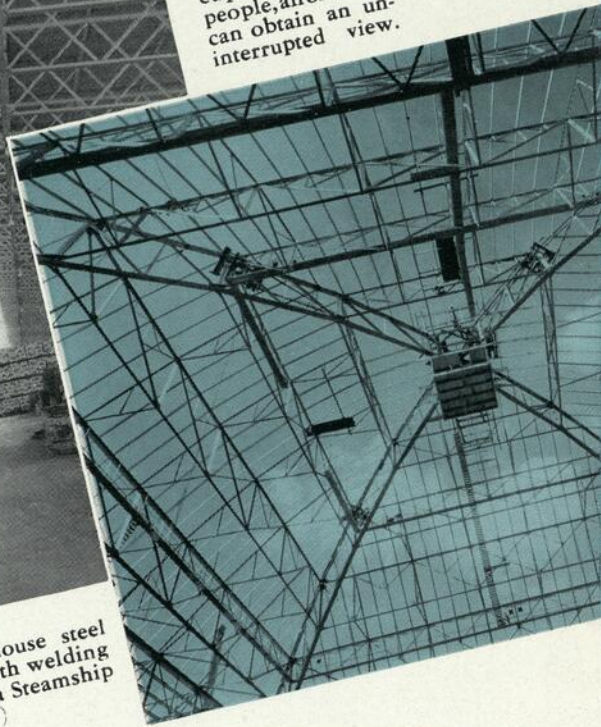
LIFT BRIDGE carrying the Canadian National Railway over the Lachine Canal at Montreal. The twelve-foot sheaves, lifting double track plate girders high enough to clear the masts of the canal freighters, are the largest welded sheaves in Canada.

Movable Bridges





Below: Dome of Maple Leaf Arena, Toronto. Seating capacity 13,000 people, all of whom can obtain an uninterrupted view.



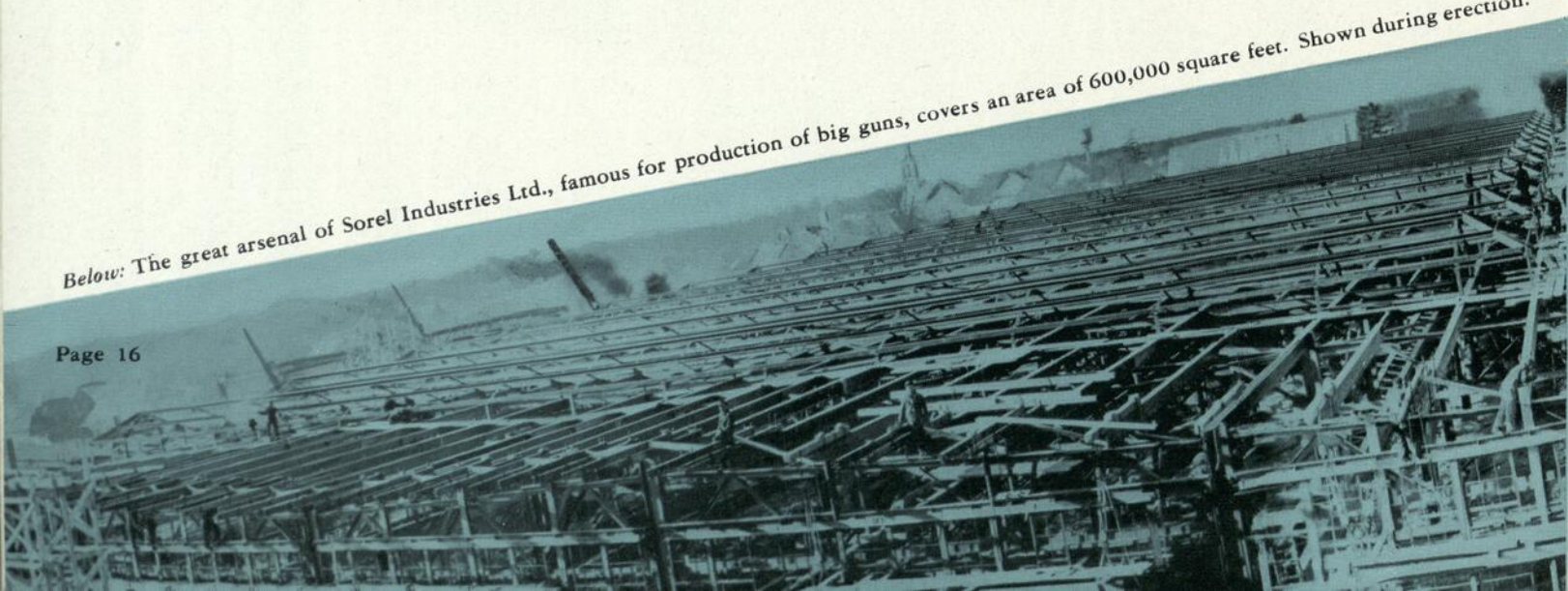
Above: Example of light warehouse steel construction employing both welding and rivetting. (Canada Steamship Lines, Montreal.)

Steel Buildings

NEXT to its bridge-building activities the Company is best known for its many and varied achievements in the building of steel structures. Its experience ranges from the simplest warehouse buildings to the largest office buildings and industrial plants. Some typical examples are illustrated. As in bridges, the Company pioneered the use of welding in building construction in this country.

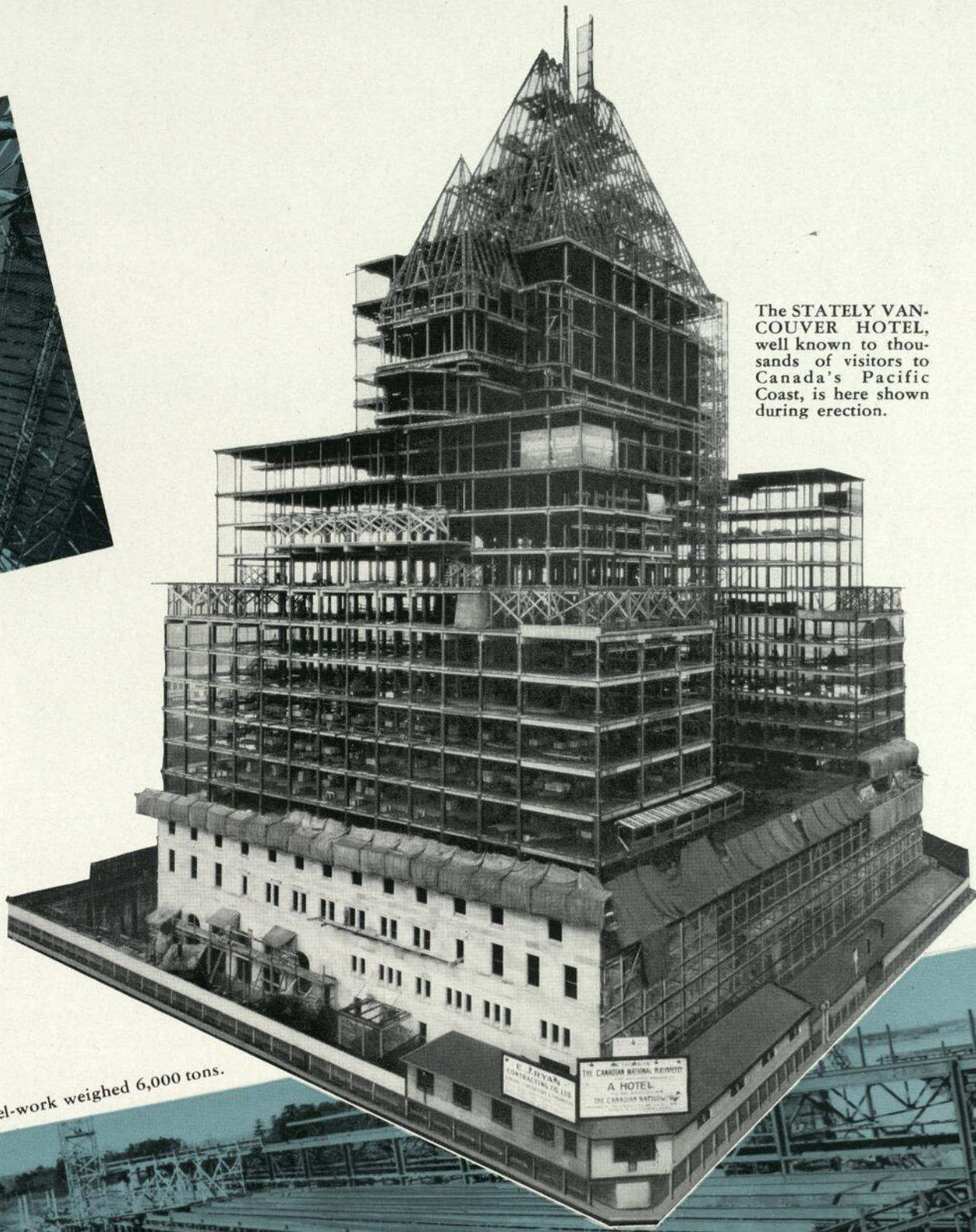
Besides the steelwork associated with the main construction of buildings, Dominion Bridge has developed a large department specializing in light auxiliary steelwork, such as safety gratings and stairways. (See page 37 for details).

Below: The great arsenal of Sorel Industries Ltd., famous for production of big guns, covers an area of 600,000 square feet. Shown during erection.

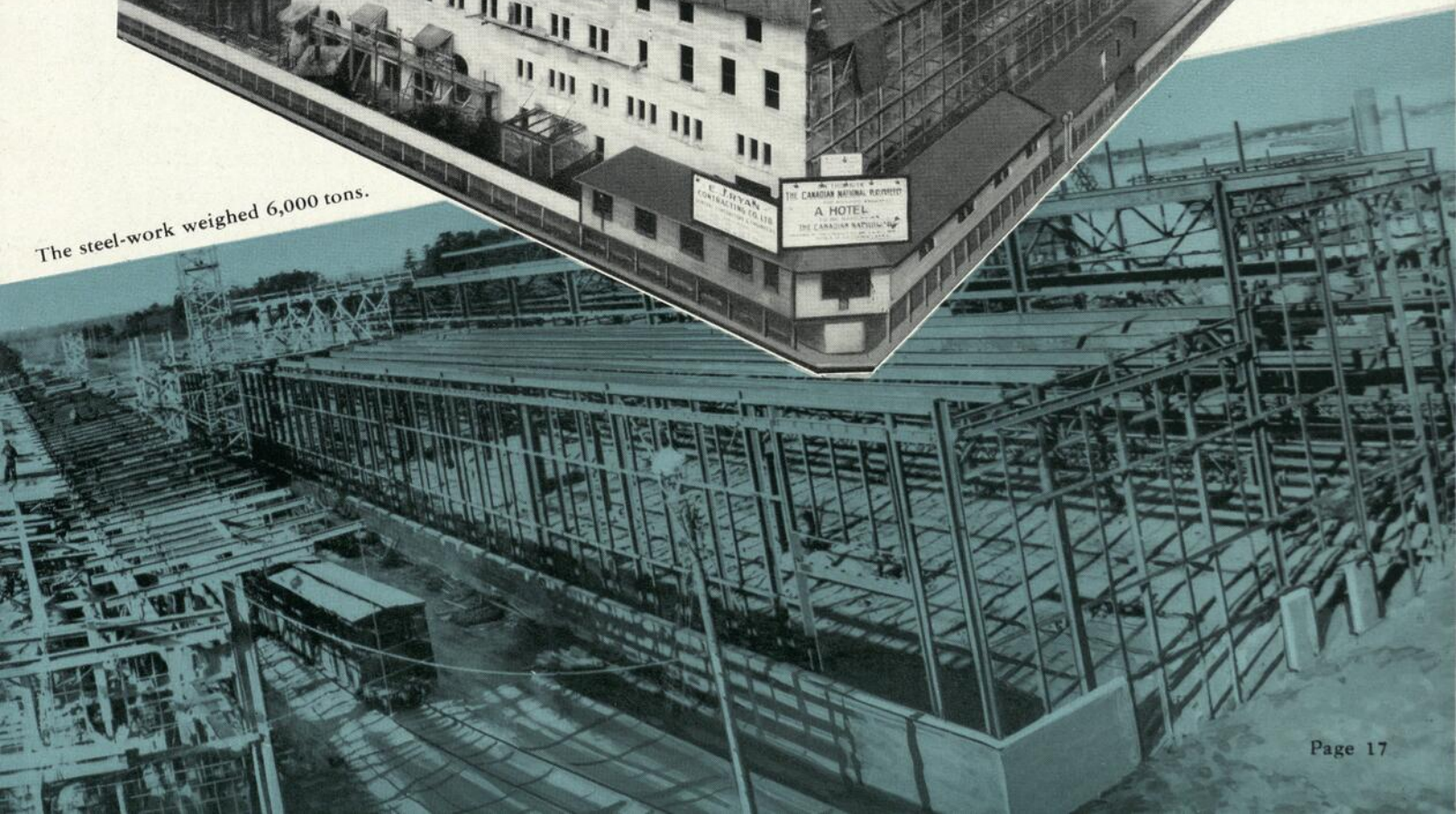


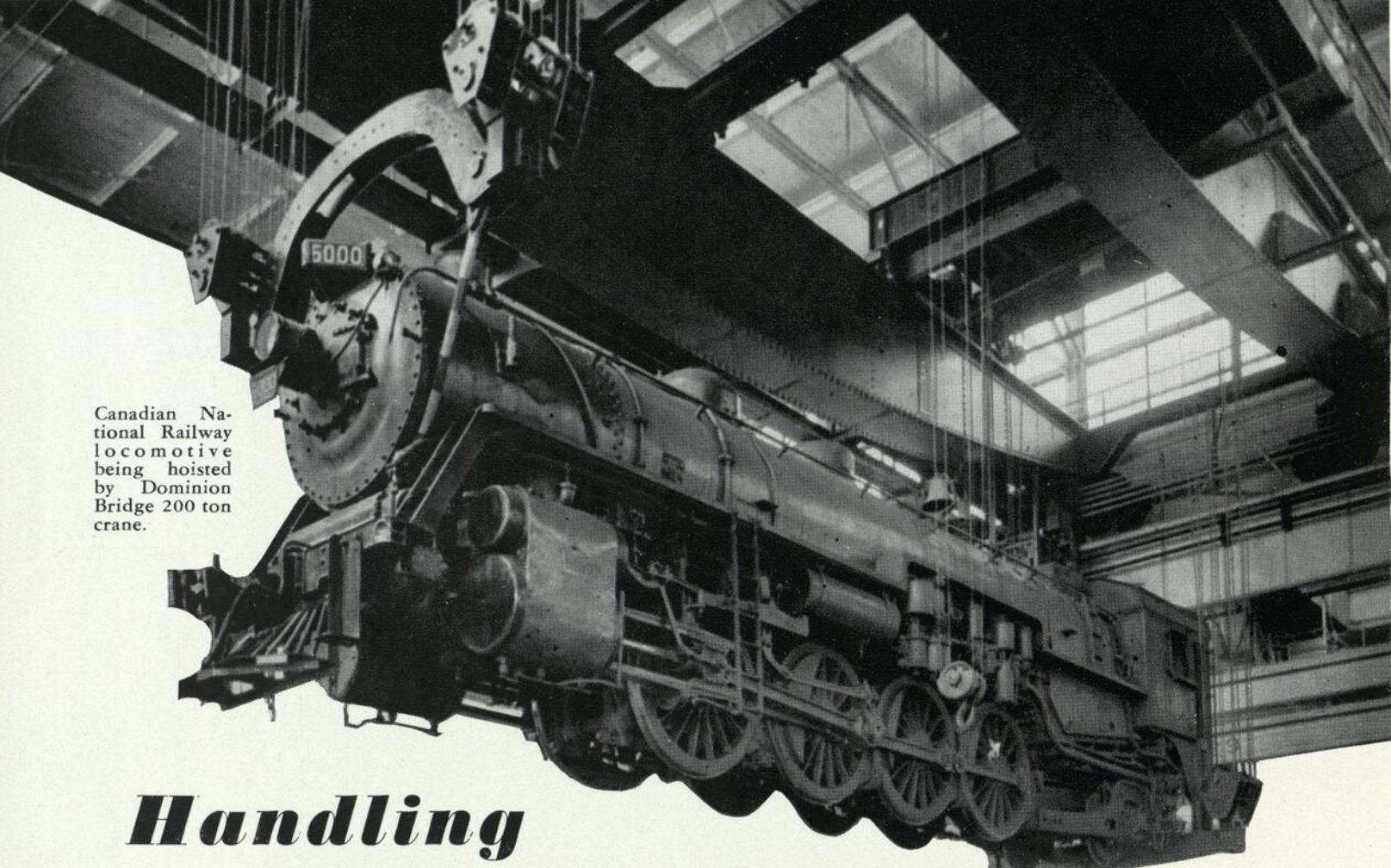


The STately VAN-
COUVER HOTEL,
well known to thou-
sands of visitors to
Canada's Pacific
Coast, is here shown
during erection.



The steel-work weighed 6,000 tons.



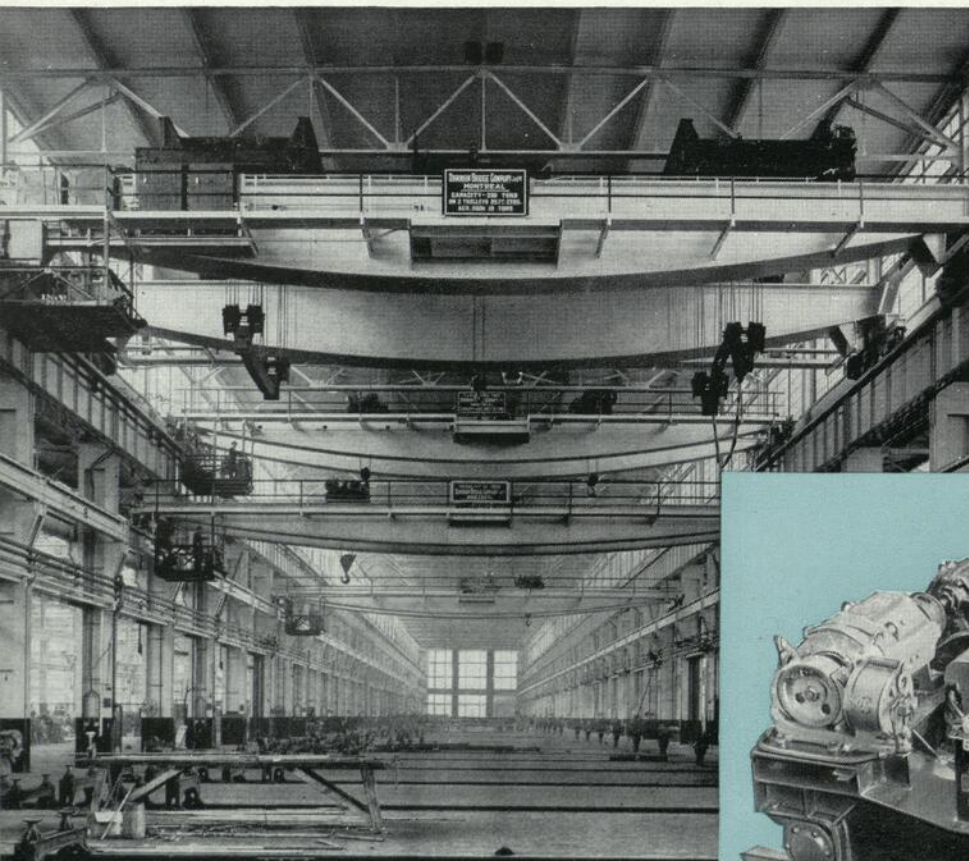


Canadian National Railway locomotive being hoisted by Dominion Bridge 200 ton crane.

Handling Equipment

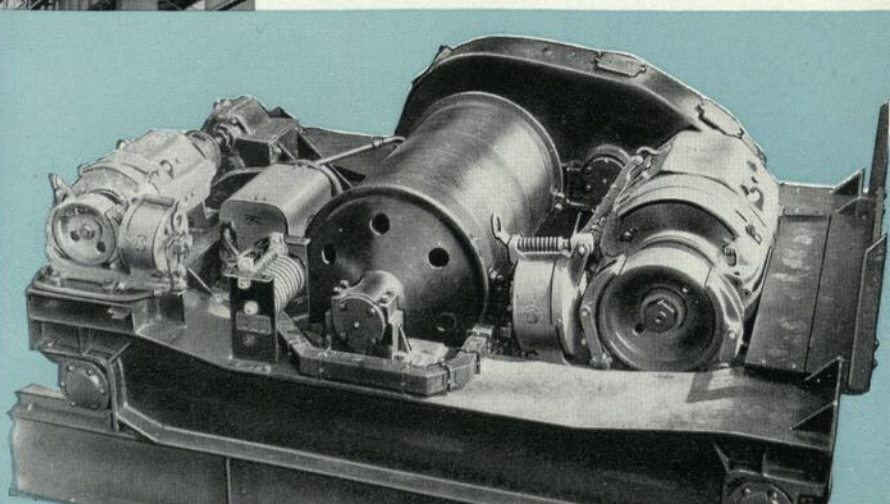
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CRANES



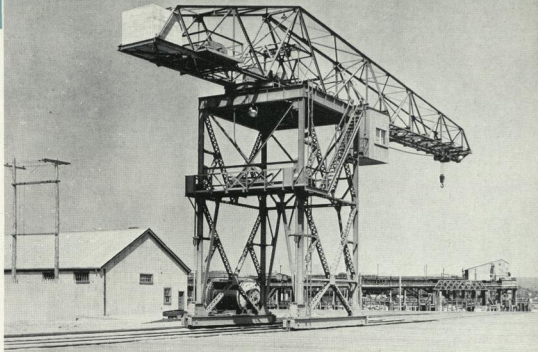
From the hoist which lifts a couple of tons to the 200 ton crane which can lift a complete locomotive represents a comprehensive range. Both types call for special study and receive the same careful design and sturdy workmanship associated with all Dominion Bridge products.

The Company builds cranes to suit the special requirements of steel mills, power houses, industrial plants, dock-yards, etc. examples of which may be seen in many parts of the world.

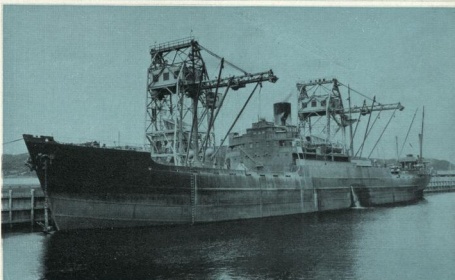


Above: In this picture four Dominion Bridge cranes are shown; capacities: 200 tons, 40 tons and 15 tons. (Canadian National Railways Shops, Pointe St. Charles, Montreal.)

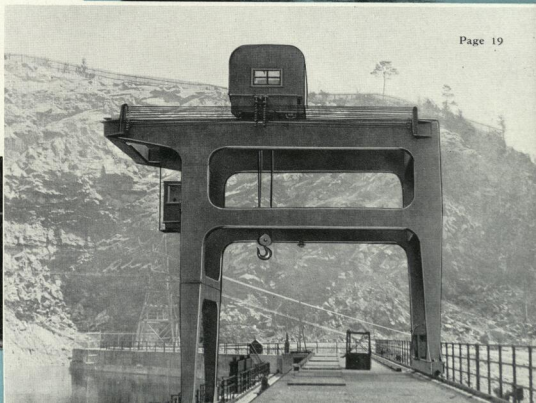
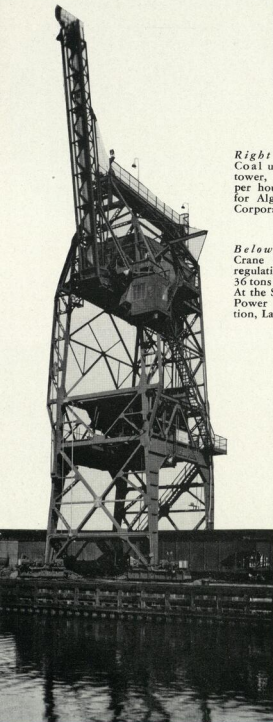
Six ton travelling hammer-head crane at Nanaimo, British Columbia.



Right and Left: Coal unloading tower, 400 tons per hour capacity for Algoma Steel Corporation.



Below: Gantry Crane for lifting regulating gates, 36 tons capacity. At the St. Maurice Power Corporation, La Tuque.



Left: 15 ton trolley for mill type crane.

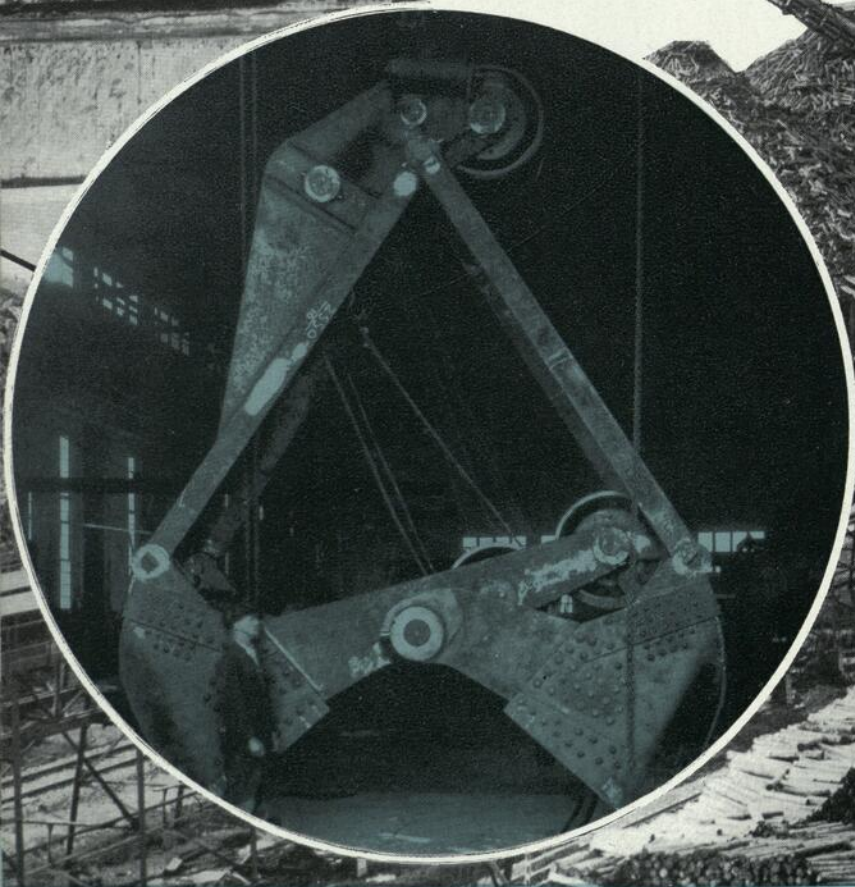
Handling Equipment

ON the preceding pages, examples of one subdivision of this broad field are illustrated; we now indicate a few of the many other diversifications coming under this general heading. Dominion Bridge experience includes the design, fabrication and erection of equipment for handling materials, as for example logs, grain, sand, stone, coal and ores and for dealing with large single units such as locomotives, railroad cars and electrical apparatus.

Many schemes involve close co-ordination of structural and mechanical design and in all cases Dominion Bridge gives thorough engineering consideration to the exact needs of the particular case.

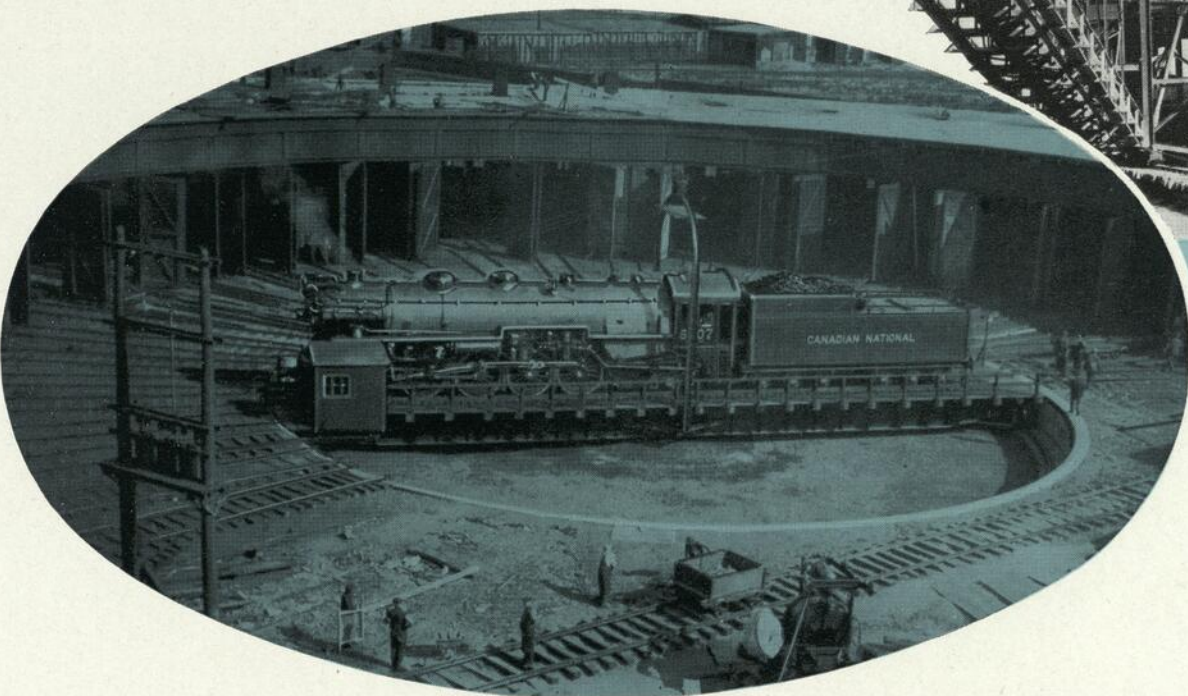
Inset and left: WILLIAMS BUCKET, capacity 6 1-2 cubic yards, weight approximately 17 tons (Shown before delivery and in use).

Page 20



Right: Special equipment for laying rip-rap to prevent erosion of the sides of a canal.

Below: 100 ft. twin-span turn-table in Canadian National Railways roundhouse at Wilton Park, Nova Scotia.



Below: Log stackers at Gatineau Mills, Quebec, (Canadian International Paper Co.)



Above: The Rapide Blanc Power development of The Shawinigan Water & Power Company, 200,000 H.P. Practically all regulating equipment and building steelwork designed and fabricated by Dominion Bridge Company.

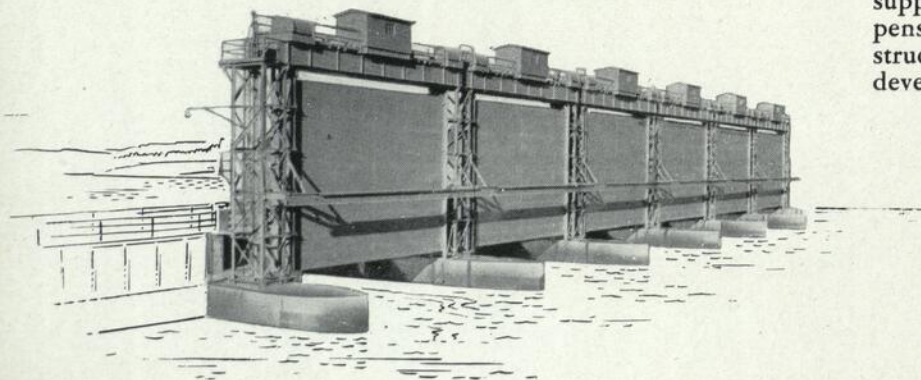


Harnessing Water Power

CANADA'S great rivers, with their waterfalls and rapids are unsurpassed as a potential source of power and the task of harnessing them has been in progress for more than fifty years. In the course of this time many great hydro-electric developments have been completed in various parts of the Country.

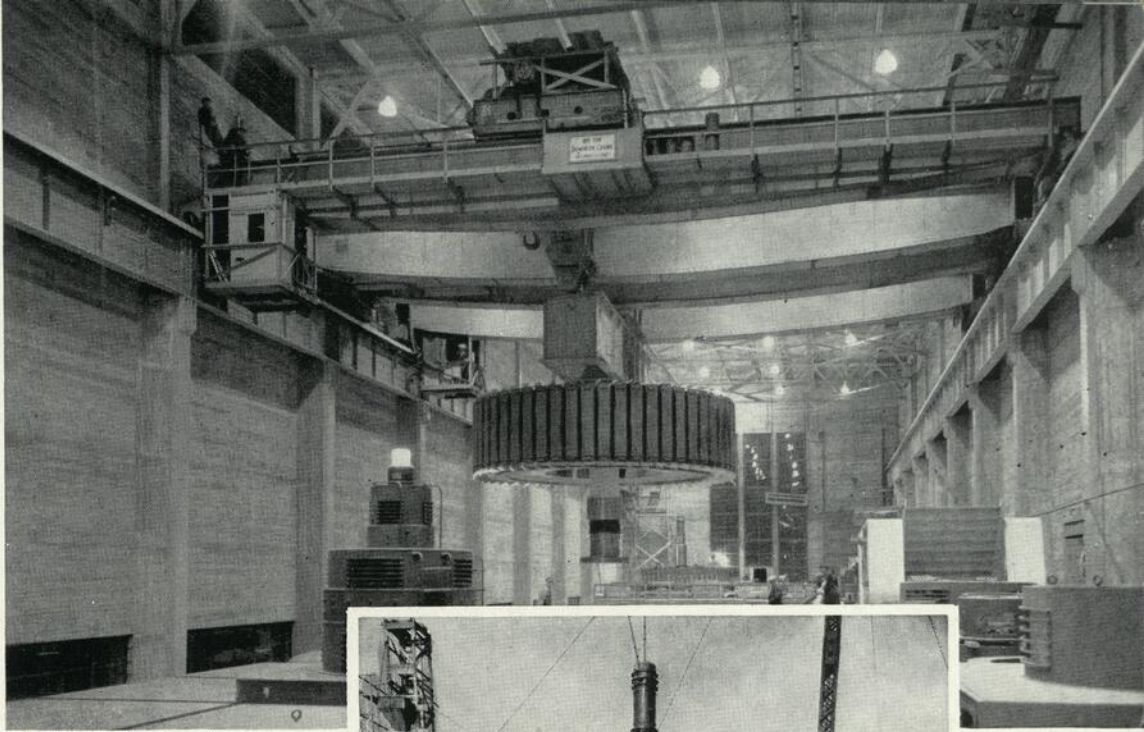
The Company's technical staff have studied the problems of hydraulic regulation since the beginning of power development in Canada. Most of the regulating gate equipment in use in Canada, has been designed, built and erected by Dominion Bridge which, as a result, has accumulated a wealth of experience, making it a leading authority in solving the many problems associated with varying site conditions.

Besides the regulating gates, the Company supplies and erects overhead and gantry cranes, penstocks, turbine scroll cases, fabricated structural steel and other items for power developments.

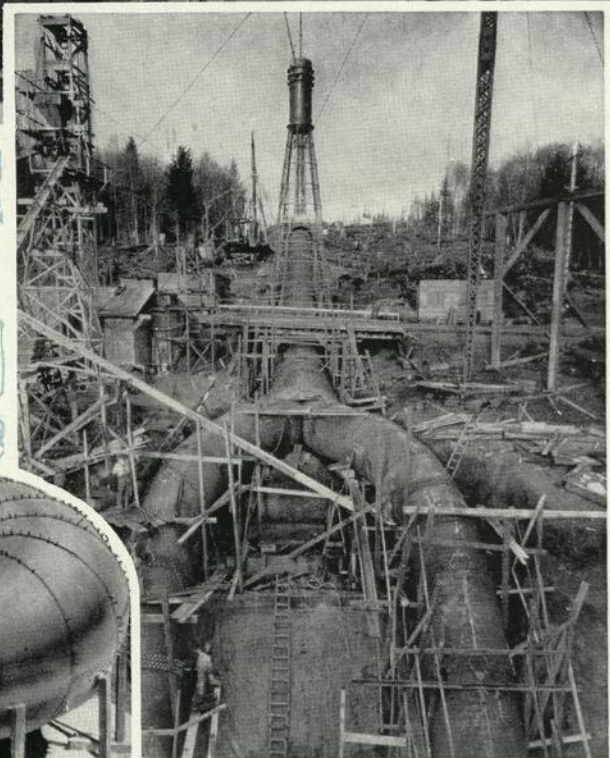
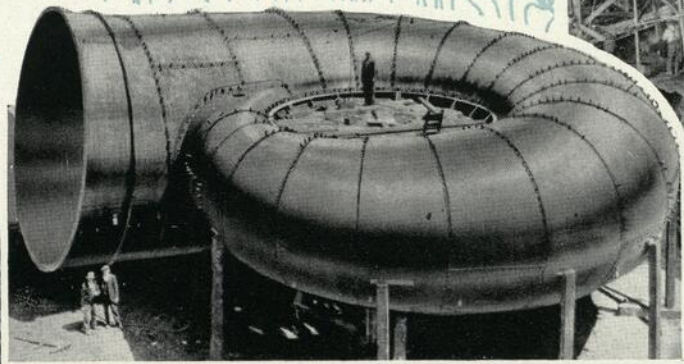


Six fixed roller sluice gates for the Shipshaw Power Development of the Aluminum Company of Canada.

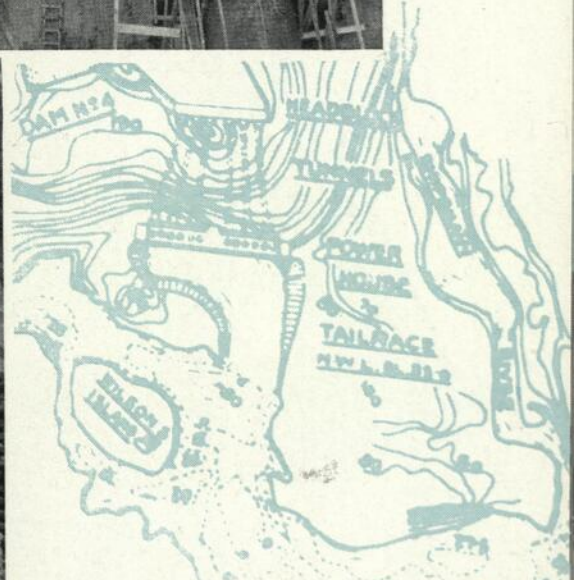
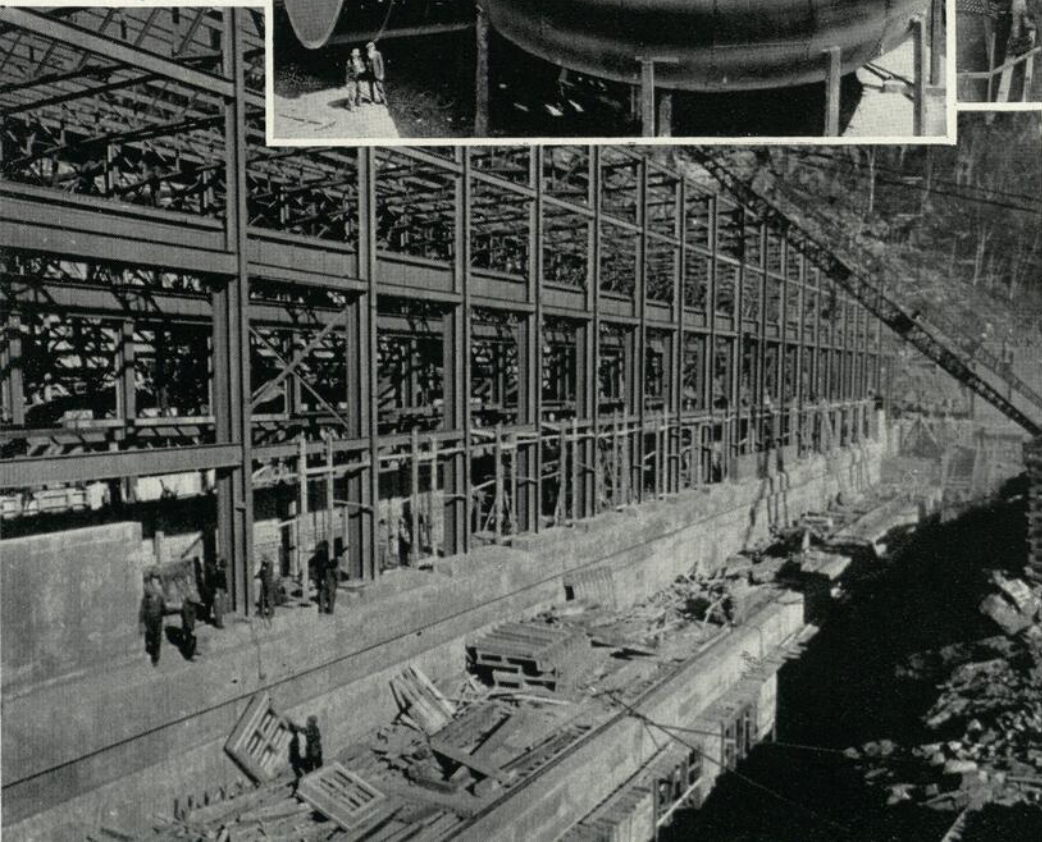
Right: Two overhead cranes, each of 185 tons capacity, combine to lift a generator rotor in the Shipshaw power house of the Aluminum Company of Canada.



Below: Scroll case for hydroelectric development, 22'-4" Diameter Inlet pipe.



Left: Main penstock for carrying water from the source to a power plant. Fabricated and erected by the Company on the Pacific Coast.



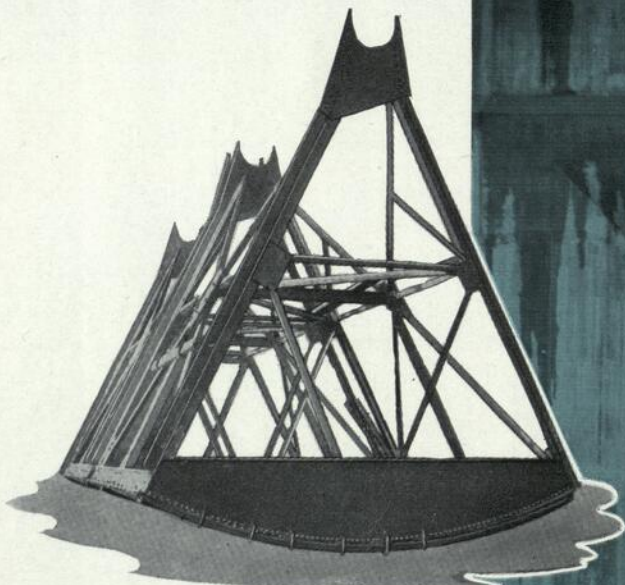
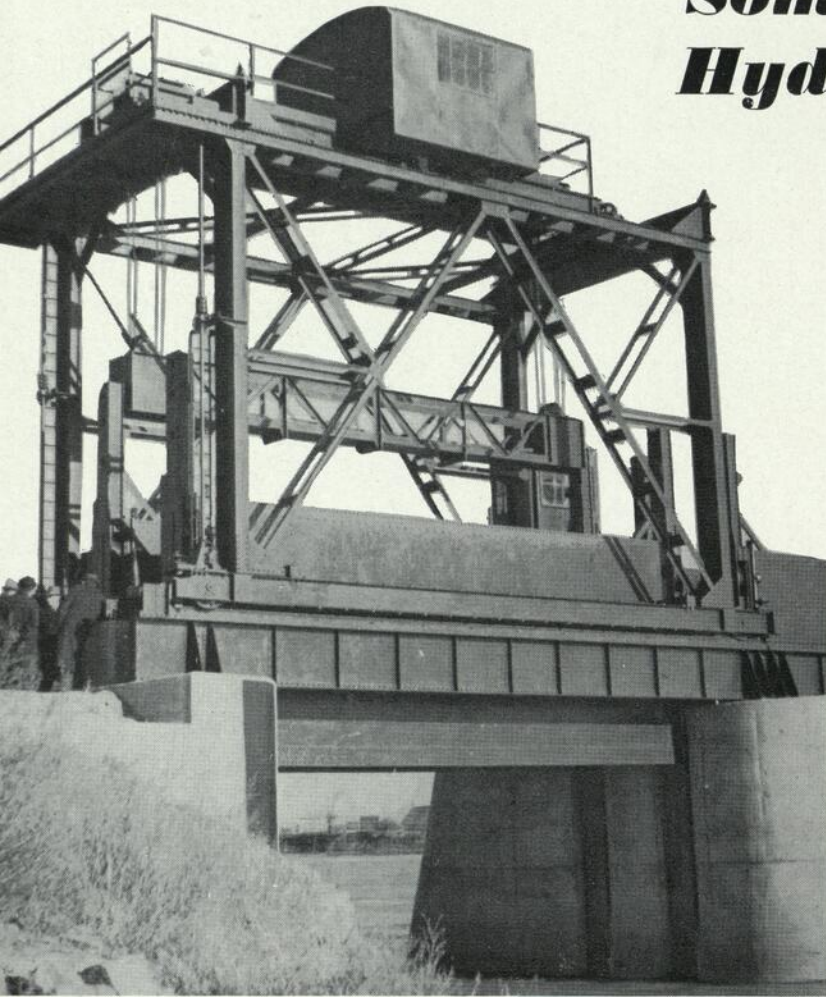
Left: Steelwork of the Power House of the St. Maurice Power Corporation, La Tuque (222,500 H.P.), fabricated by the Company.

Some Examples of Hydraulic Regulating Equipment

THE illustrations in these pages and on pages 22 and 23 show typical examples of hydraulic regulating and auxiliary equipment designed, built and erected by the Company. Besides the gates illustrated, the Company makes regulating gates for further control of the water in the power house bulkhead, emergency gates, and head gates for controlling the flow to the turbines. All are equipped with appropriate hoisting gear to suit the operating conditions.

Left: Gantry crane at Fryers Island Dam on Richelieu River near Montreal.

Below: Two of twelve dead gates, fabricated and erected for the Shipshaw Power Development of the Aluminum Company, complete with hoisting equipment and trash racks.

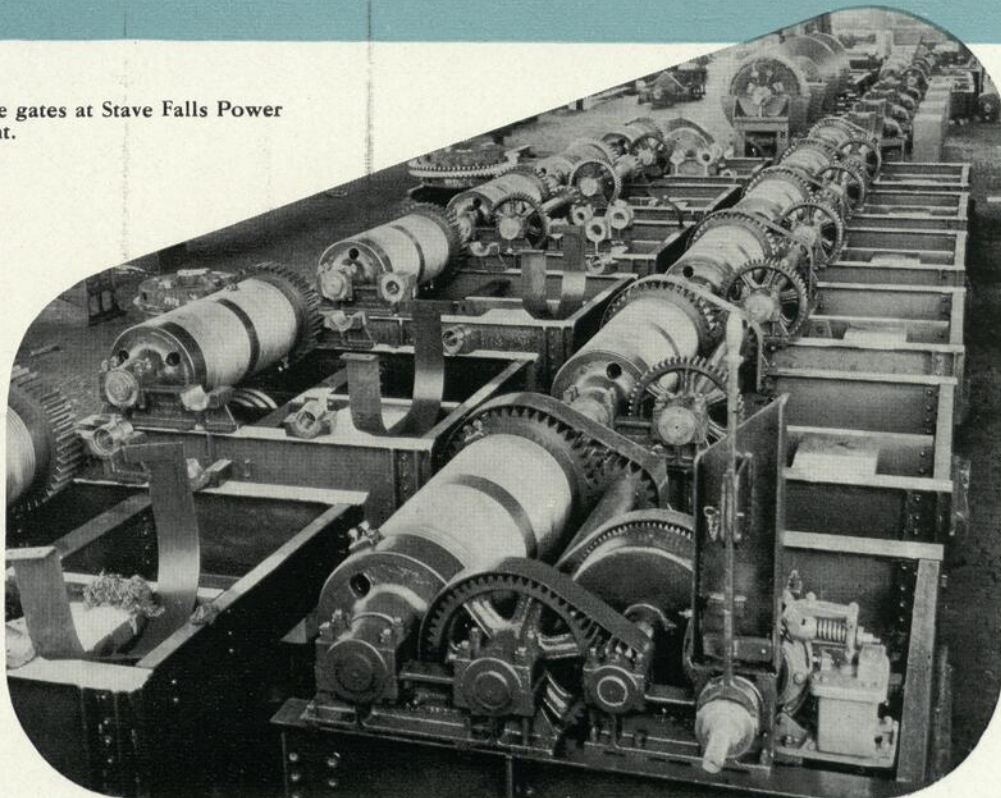


Above: Two large
Tainter Gates.





Above: Sluice gates at Stave Falls Power Development.



Left: A group of gate hoists for Chat Falls Power Development in course of assembly.

Steel Platework

DOMINION BRIDGE experience with pressure vessels and other platework precedes 1914 and was augmented during the first world war. Since these earlier days the Company's facilities have been greatly expanded, until today they include equipment for undertaking practically every kind of welded and rivetted platework in steel and alloys.

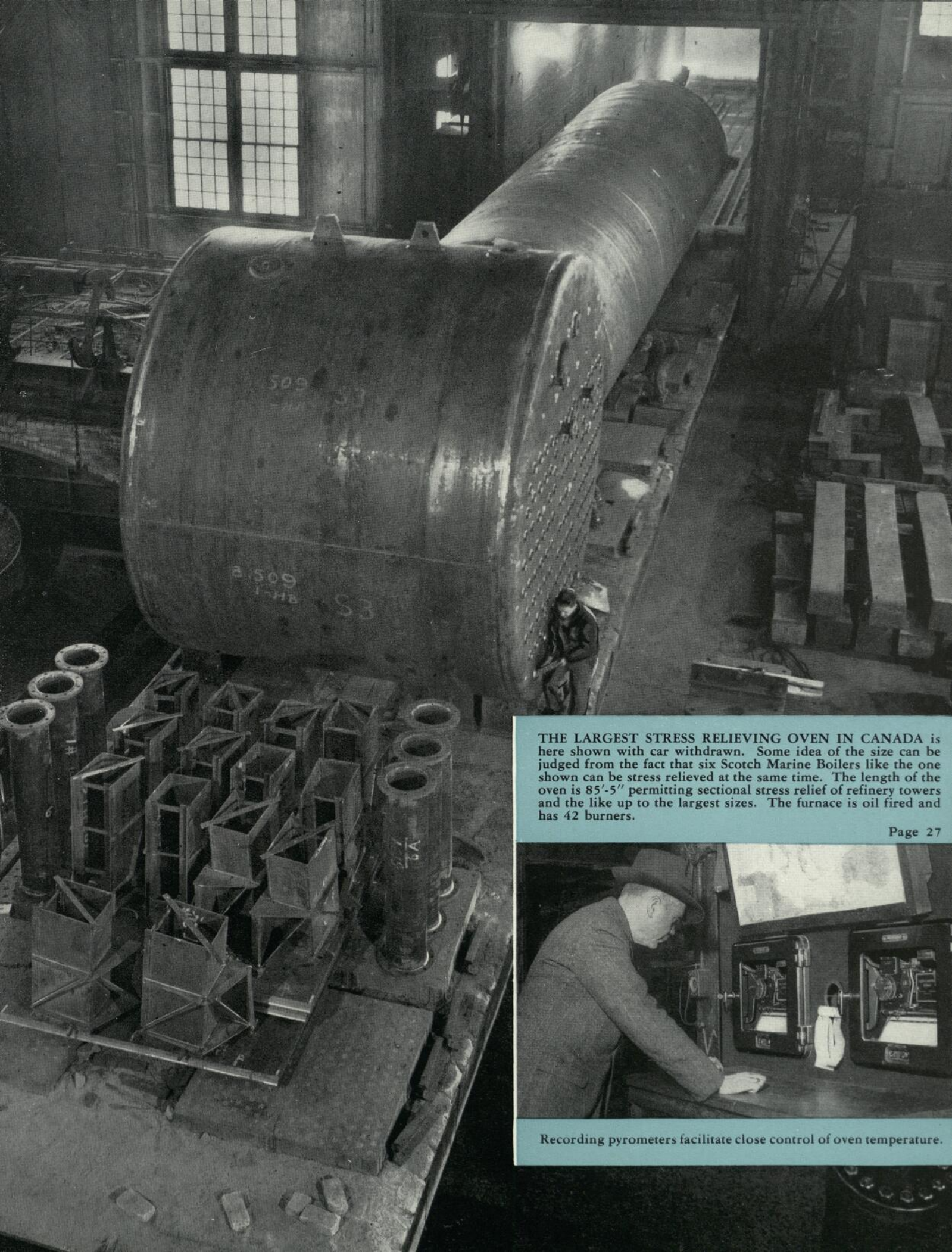
Where resistance to corrosion is important (as in the chemical industry) the Company can supply vessels in stainless steel, monel metal or clad with stainless materials.

The plant includes the most complete equipment for stress relief and X-ray for pressure vessel welding* in the country, and size is limited only by transport considerations.

*ASME Code U68 and equivalent specifications.

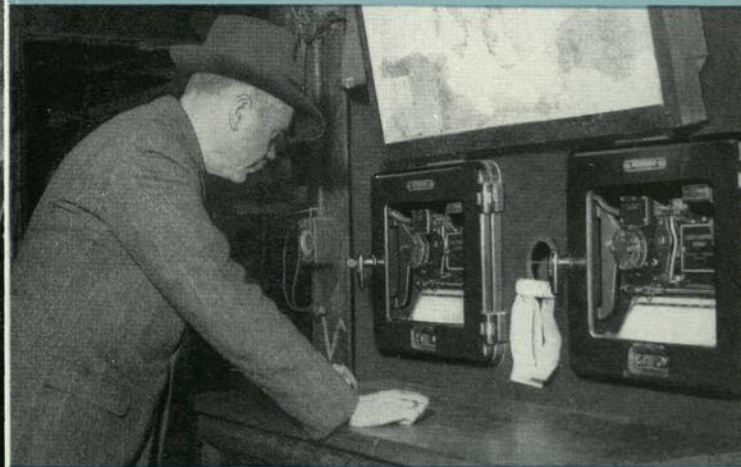
Page 26

Part of the Sarnia Synthetic Rubber Plant, showing three large towers and some of the other vessels fabricated by Dominion Bridge for this project, and exemplifying the Company's work in the synthetic rubber, oil refinery and kindred fields. The B.B. extractor tower at the left is the largest vessel of its kind built in Canada, having a length of 165 feet 4 inches; inside diameter of 10 feet 6 inches and weighing 138 1-2 tons without auxiliary fittings. (Further details and picture on pages 30-31).

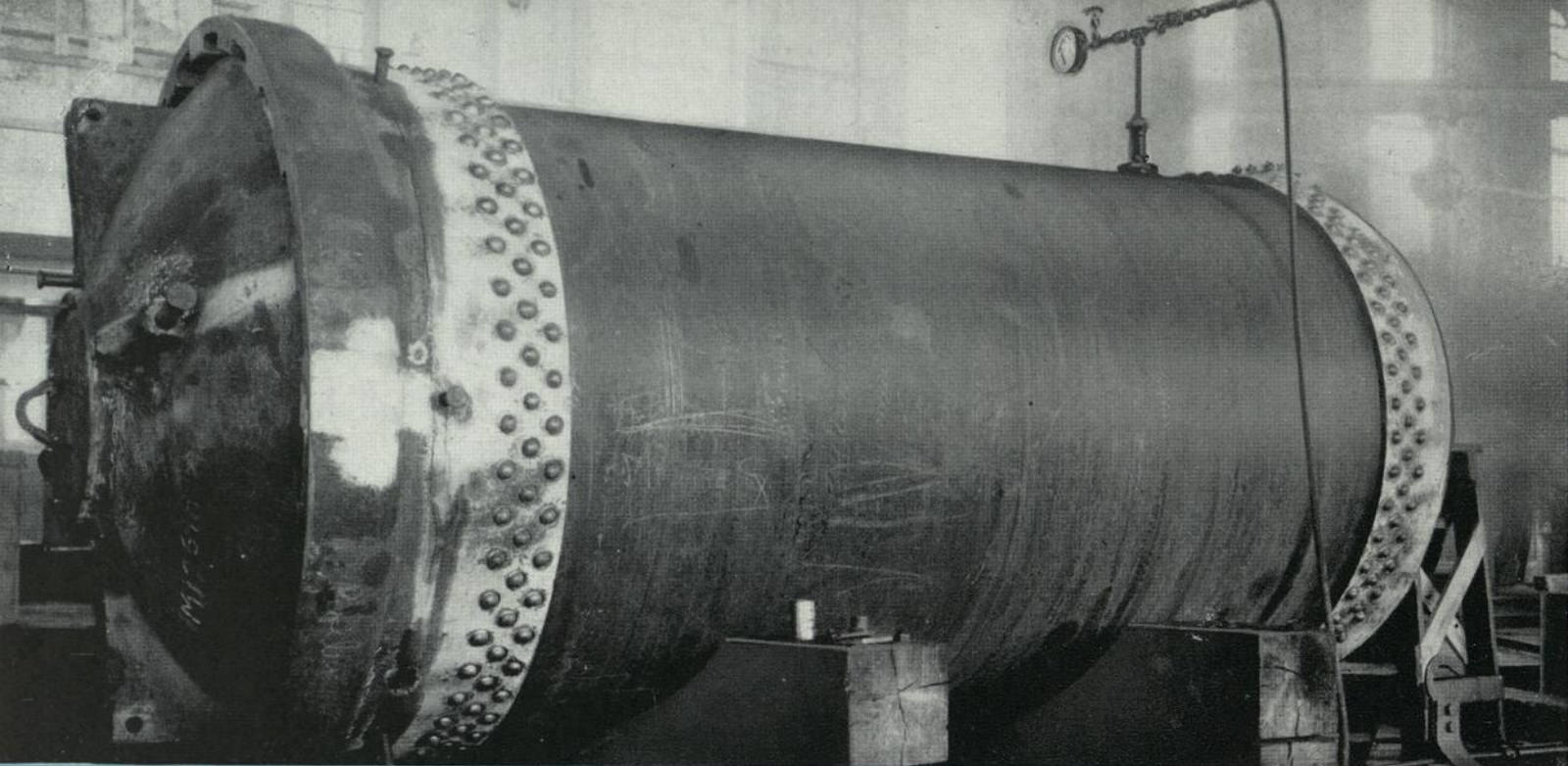


THE LARGEST STRESS RELIEVING OVEN IN CANADA is here shown with car withdrawn. Some idea of the size can be judged from the fact that six Scotch Marine Boilers like the one shown can be stress relieved at the same time. The length of the oven is 85'-5" permitting sectional stress relief of refinery towers and the like up to the largest sizes. The furnace is oil fired and has 42 burners.

Page 27

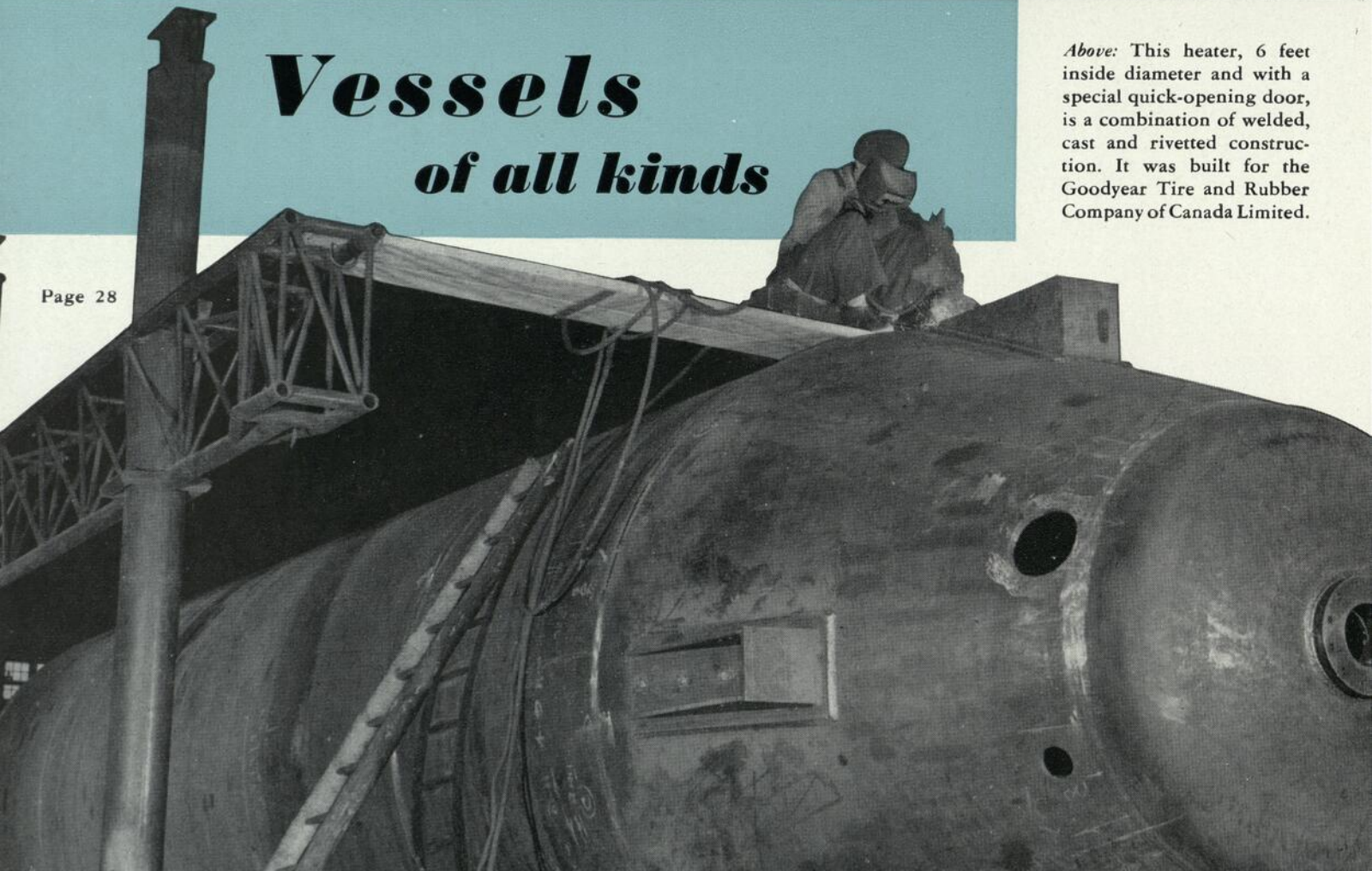


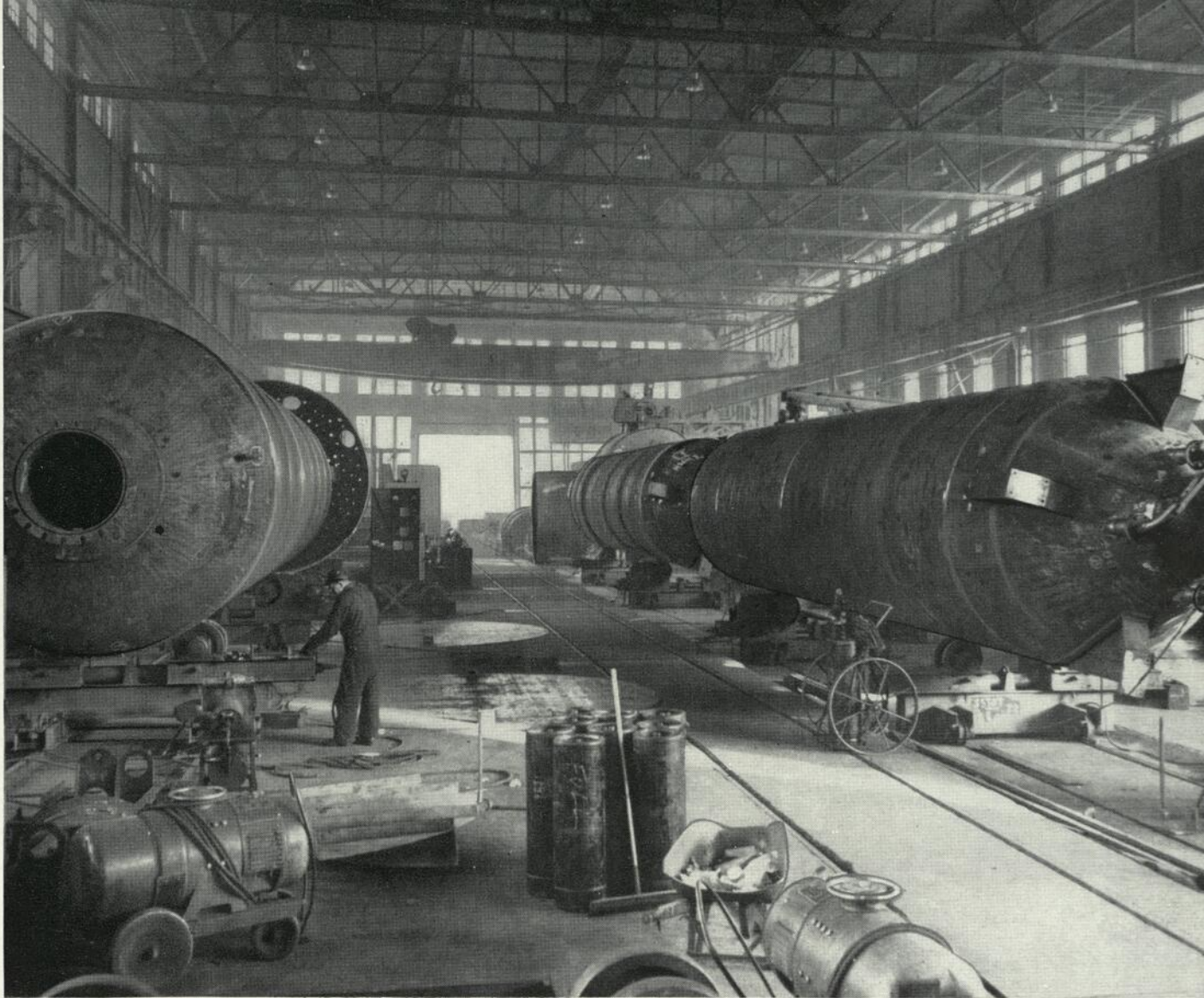
Recording pyrometers facilitate close control of oven temperature.



Vessels of all kinds

Above: This heater, 6 feet inside diameter and with a special quick-opening door, is a combination of welded, cast and rivetted construction. It was built for the Goodyear Tire and Rubber Company of Canada Limited.



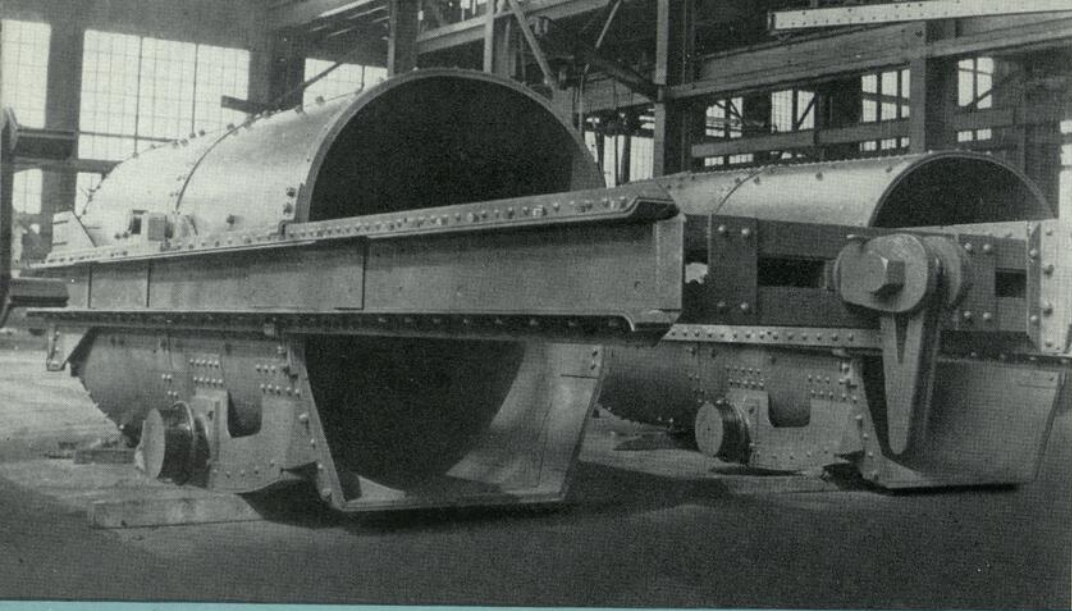


Above: Part of main plate shop of the Company showing large vessels of various types in course of fabrication.

Left: Pulp mill digester during welding.

POWERFUL X-RAY EQUIPMENT is essential for welding pressure vessel work. The welded seams of the vessel below are being X-rayed.



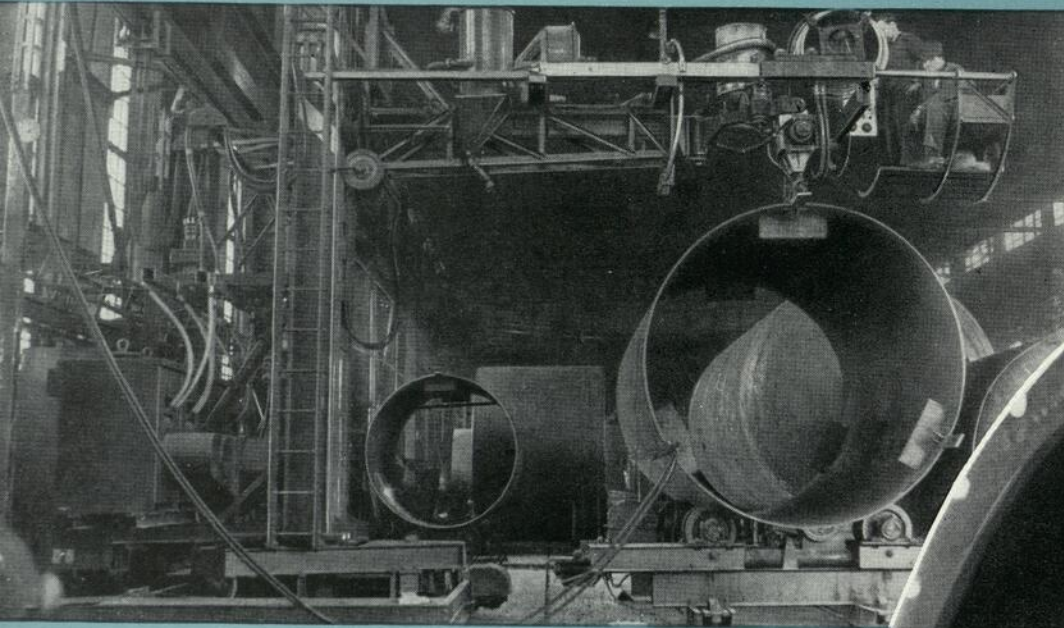


Platwork Cont'd.

Left: Mine skips made from nickel-steel weigh less and carry more ore. They have to be carefully balanced to facilitate dumping.

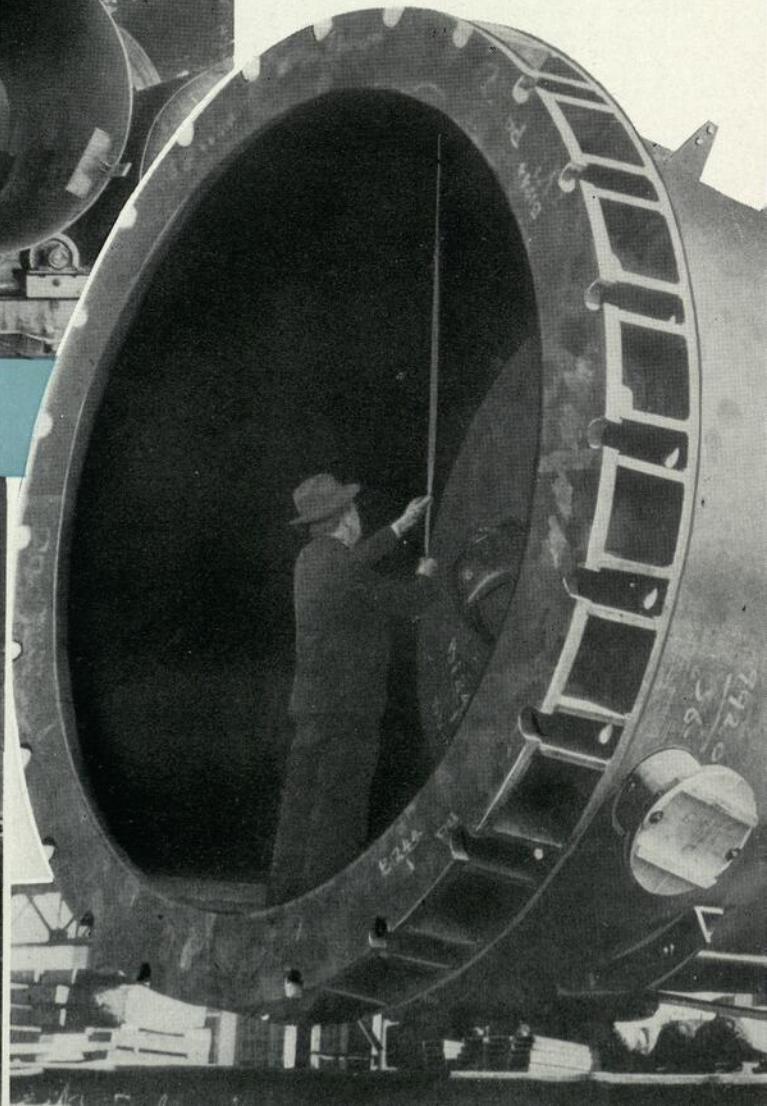
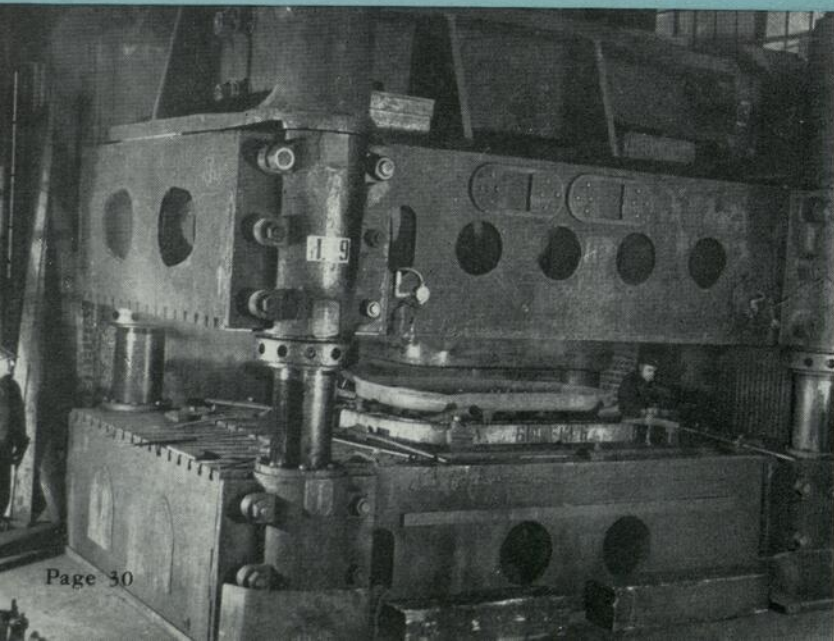
Right: Hot metal mixer of 800 tons capacity, shown during erection.

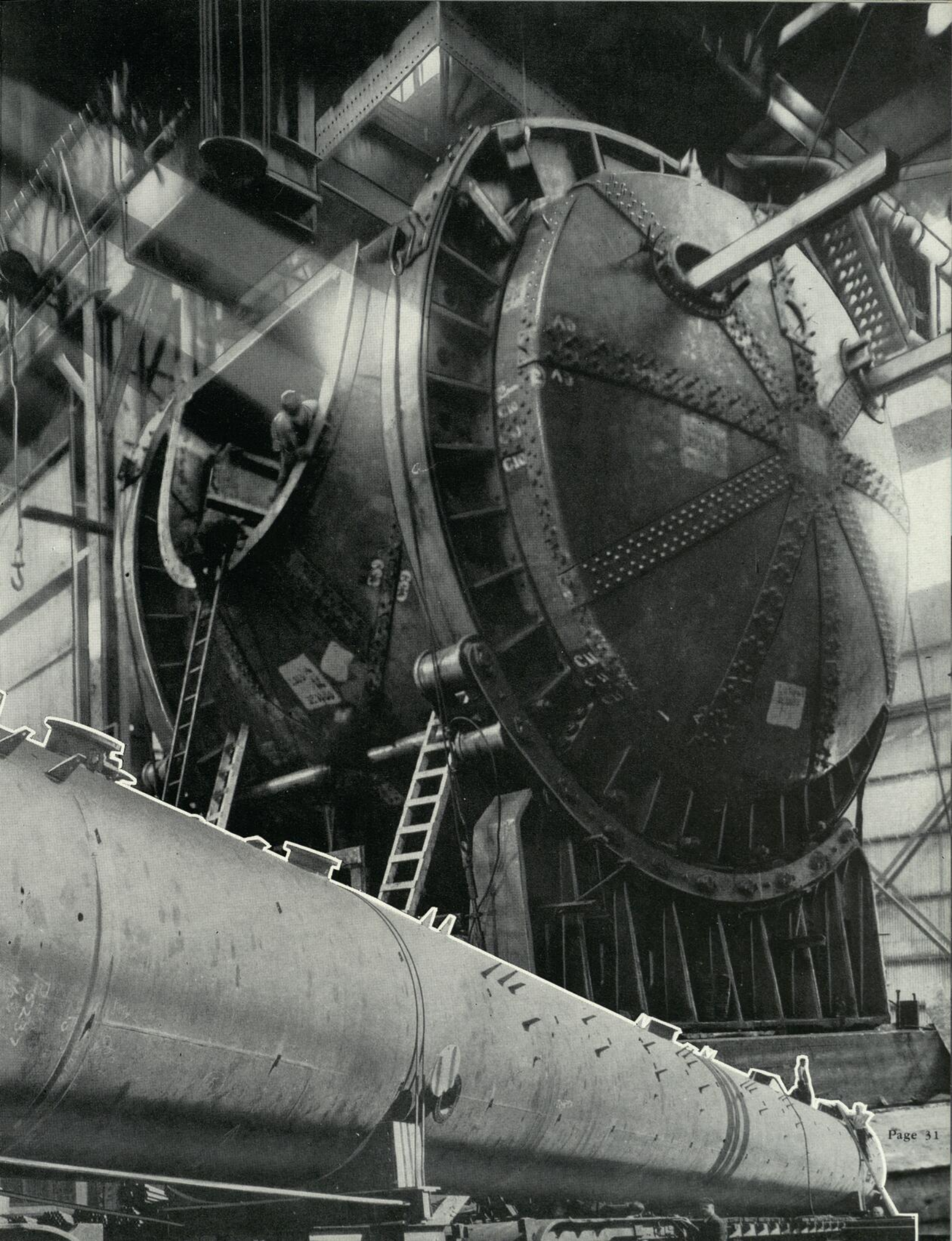
Below: Automatic welding of pressure vessels ensures uniform and smooth seams. Equipment shown is one of several designed and built by the Company to employ the Union-Melt process for various types of work.



Below: Large B.B. extractor tower (illustrated on page 26) is here shown as it left the plant. It was the largest single unit freight shipment ever carried over a railway line in North America.

Below: 2000 ton hydraulic press for use in forming heavy plates.







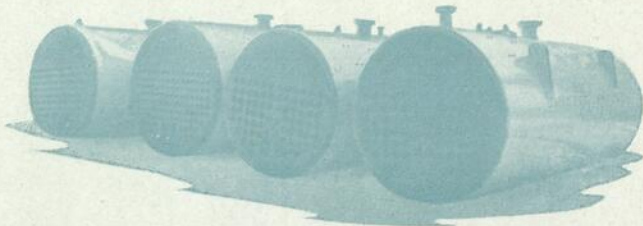
Boilers for Every Service

THE Dominion Bridge Company offers a complete service in the design, fabrication and installation of boilers and steam generators. Numerous distinct types are made ranging from the "VICTOR" fire tube boiler for the heating of schools, institutions and apartment houses to large water-tube steam generators for industrial use.

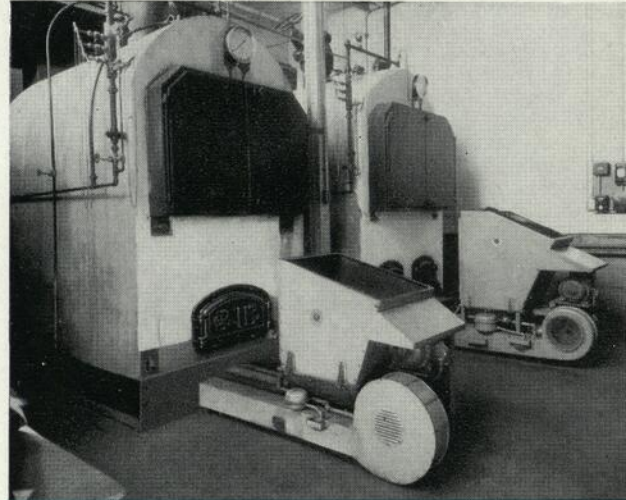
These boilers are adaptable to all types of firing, and for larger sizes the Company manufactures a range of fuel pulverizer units.

The Dominion Bridge Company was the pioneer in Canada in the welding of high pressure boilers and makes extensive use of this method of construction, which offers many advantages to the user. All welded boilers for high pressure duty are stress relieved, X-rayed and guaranteed free from flaws.

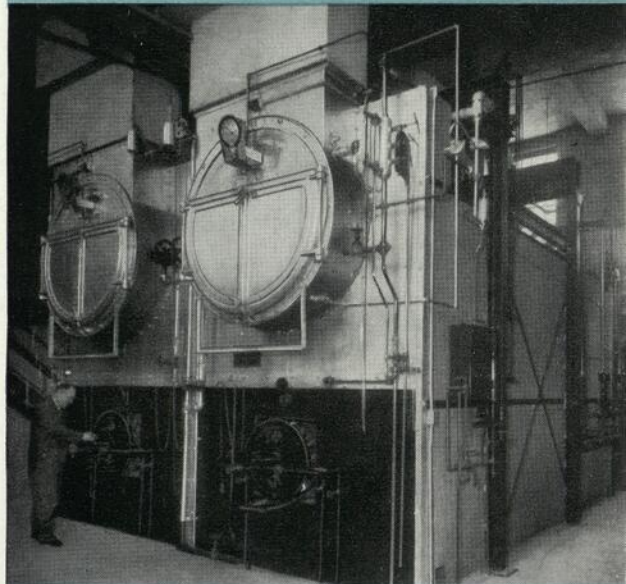
Below: Group of welded horizontal return tube boilers.



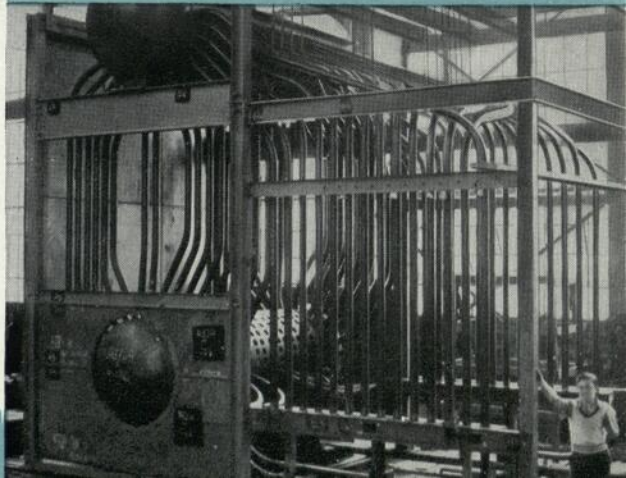
Right: Large water tube boiler under construction.

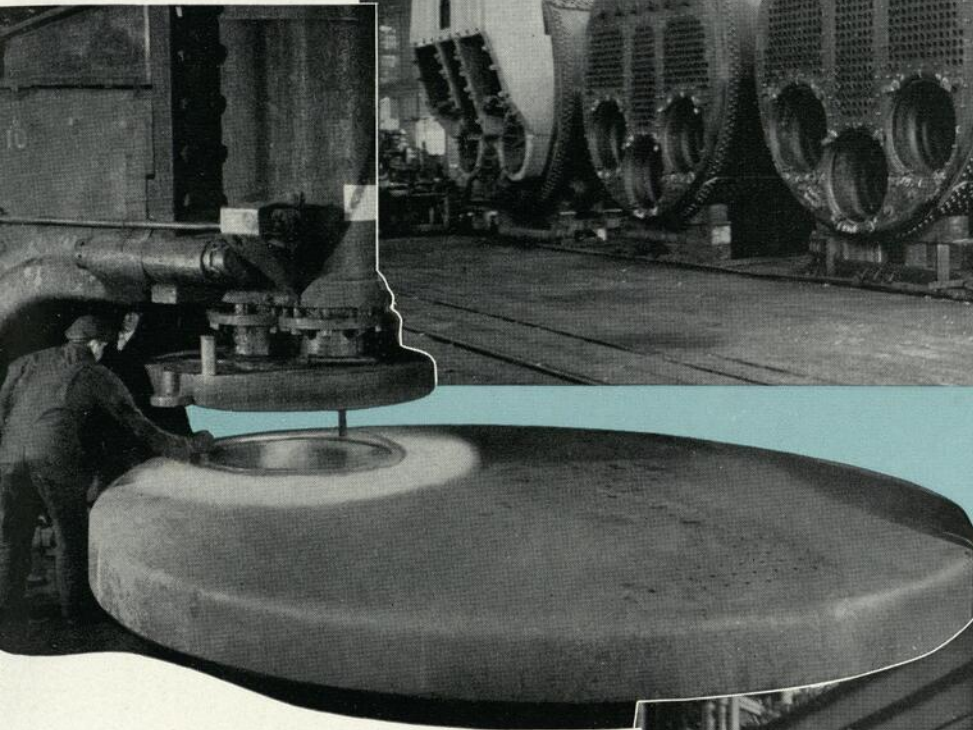
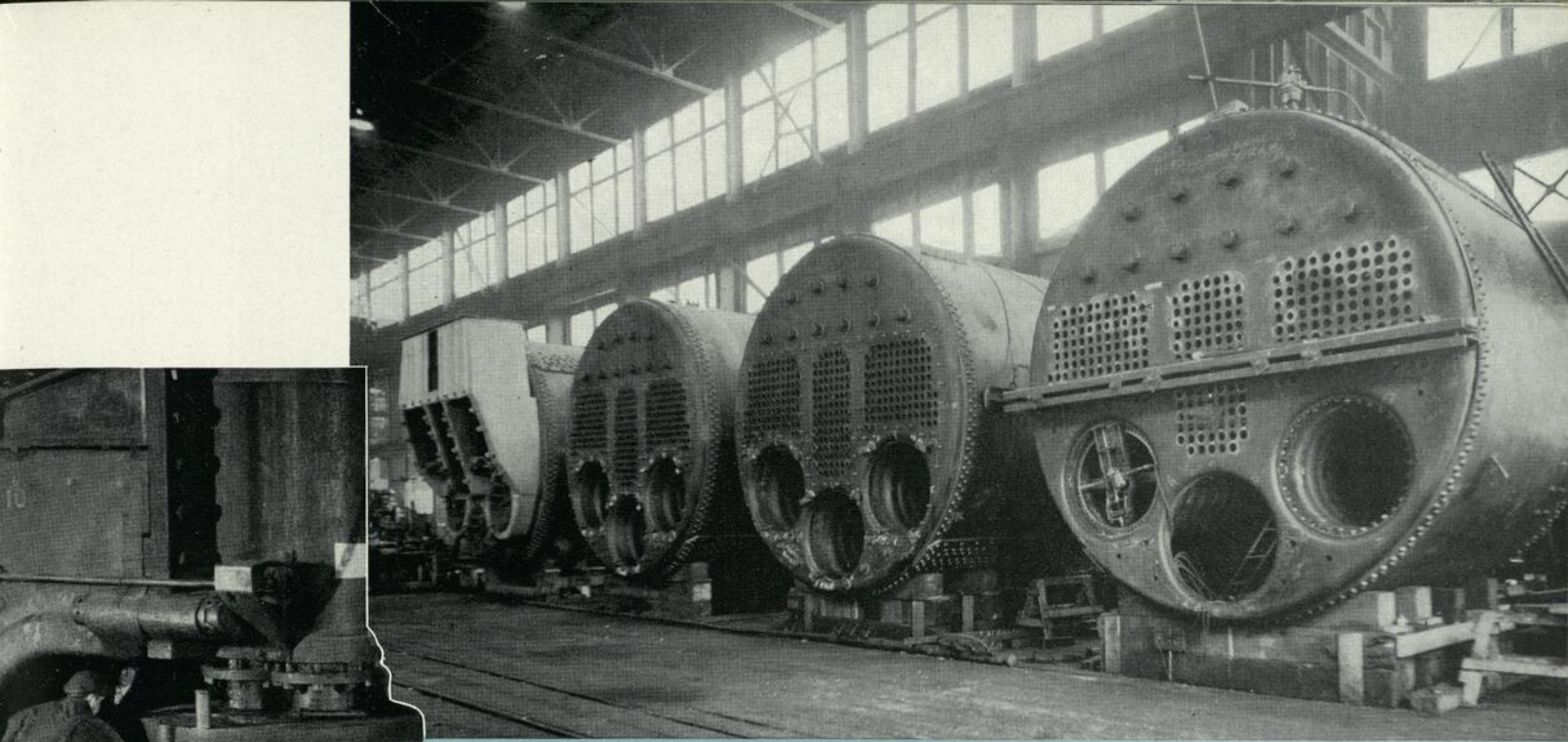


Above: Two welded horizontal return tube boilers installed at the Hospital St. Joseph, Lachine.



Above: Two "VICTOR" boilers at the Royal Typewriter Company's plant in Montreal.

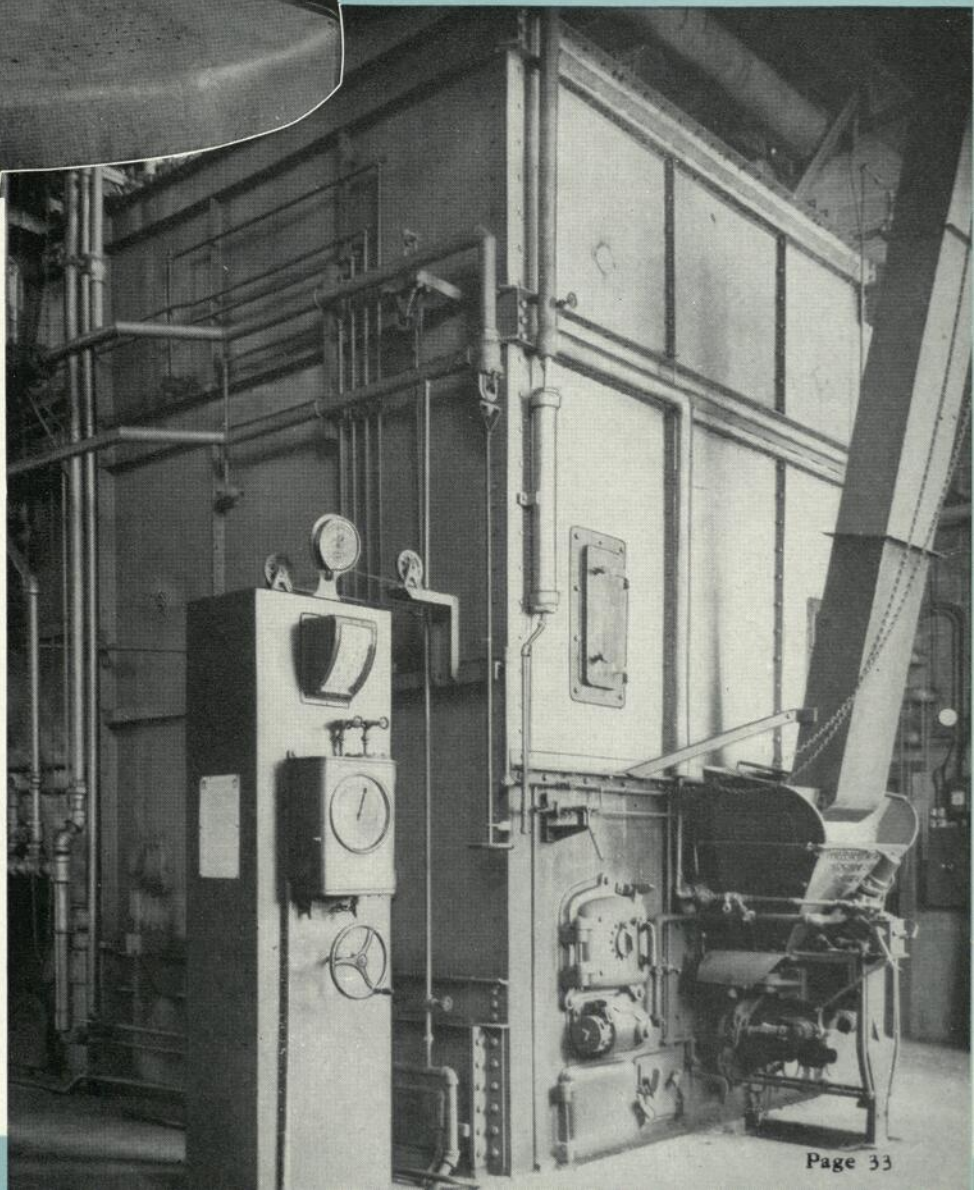


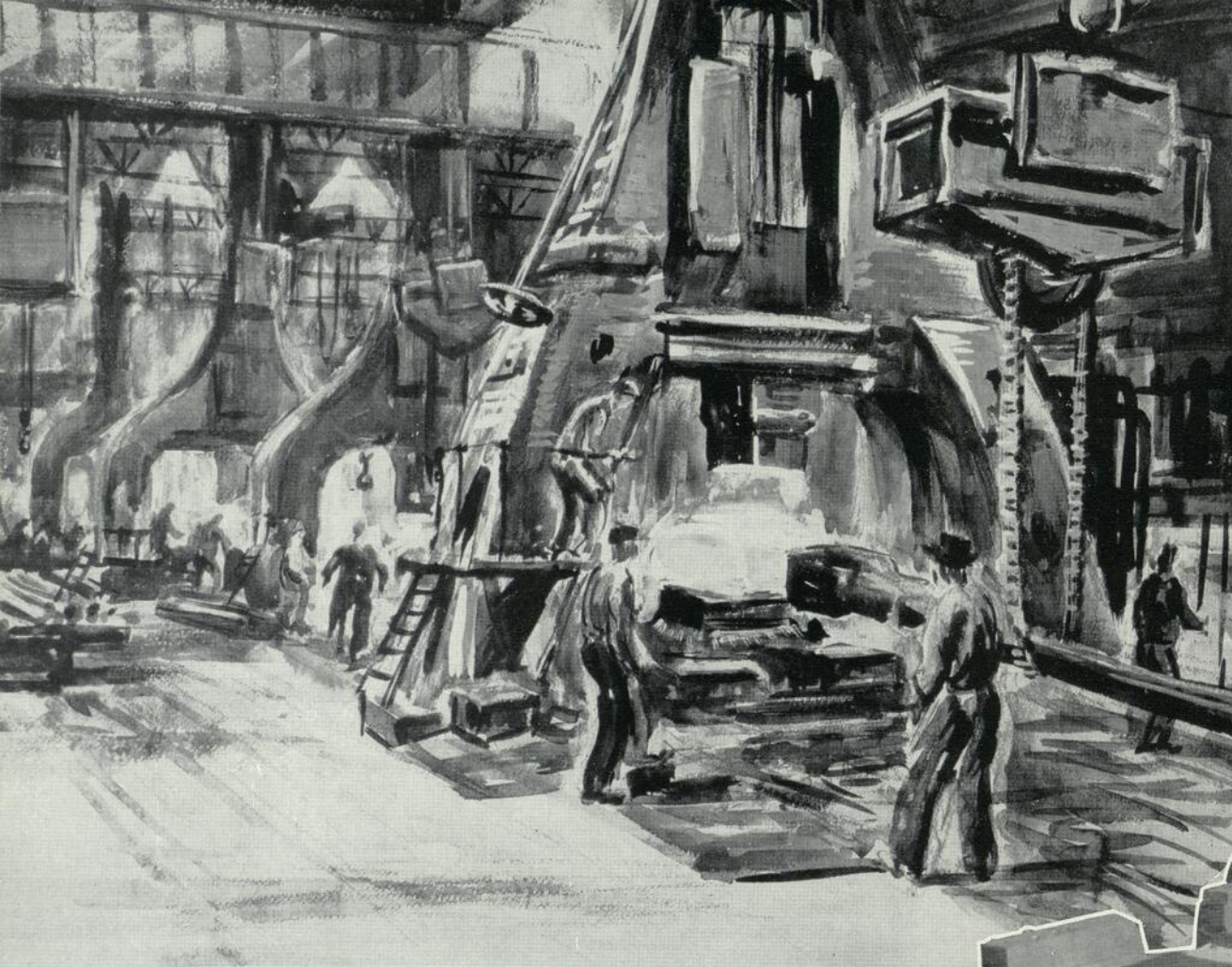


Top Right: View in the Vancouver Plant showing Scotch Marine type boilers under construction. Dominion Bridge boilers are made in several of the branch plants as well as Lachine.

Above: Flanging furnace opening of a Scotch Marine boiler.

Right: One of two water-tube boilers installed at a large industrial plant for heating purposes.





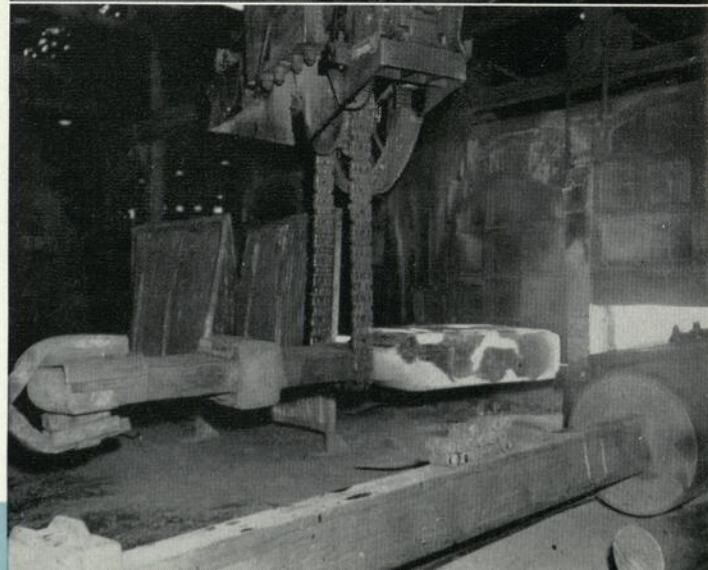
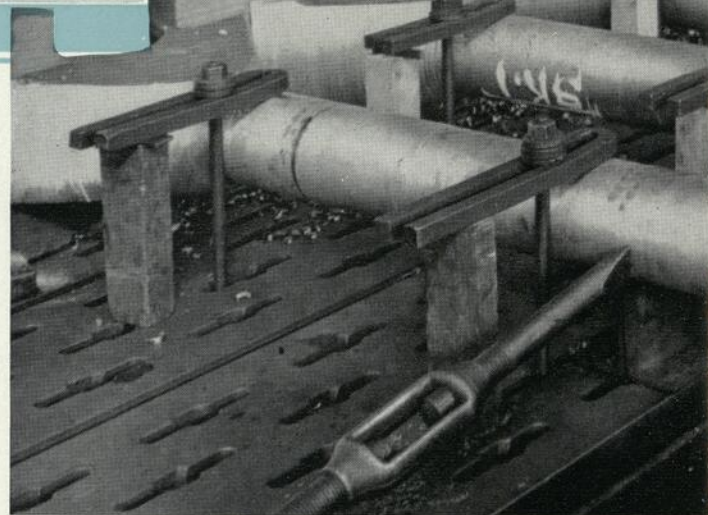
Left: Battery of hammers in action. The forge shop contains hammers up to 12 tons capacity.



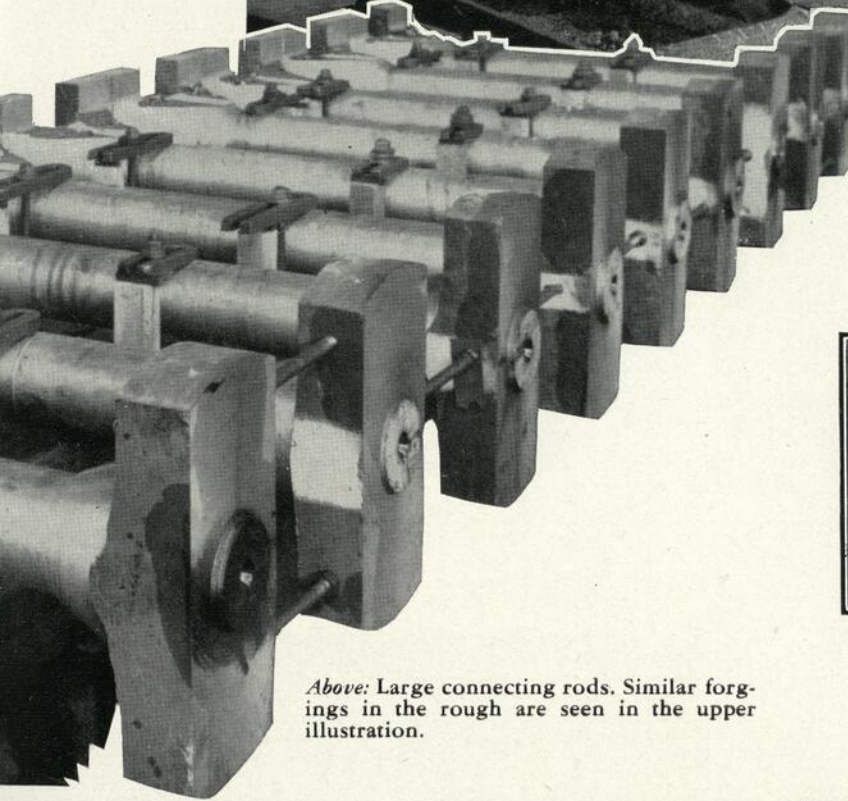
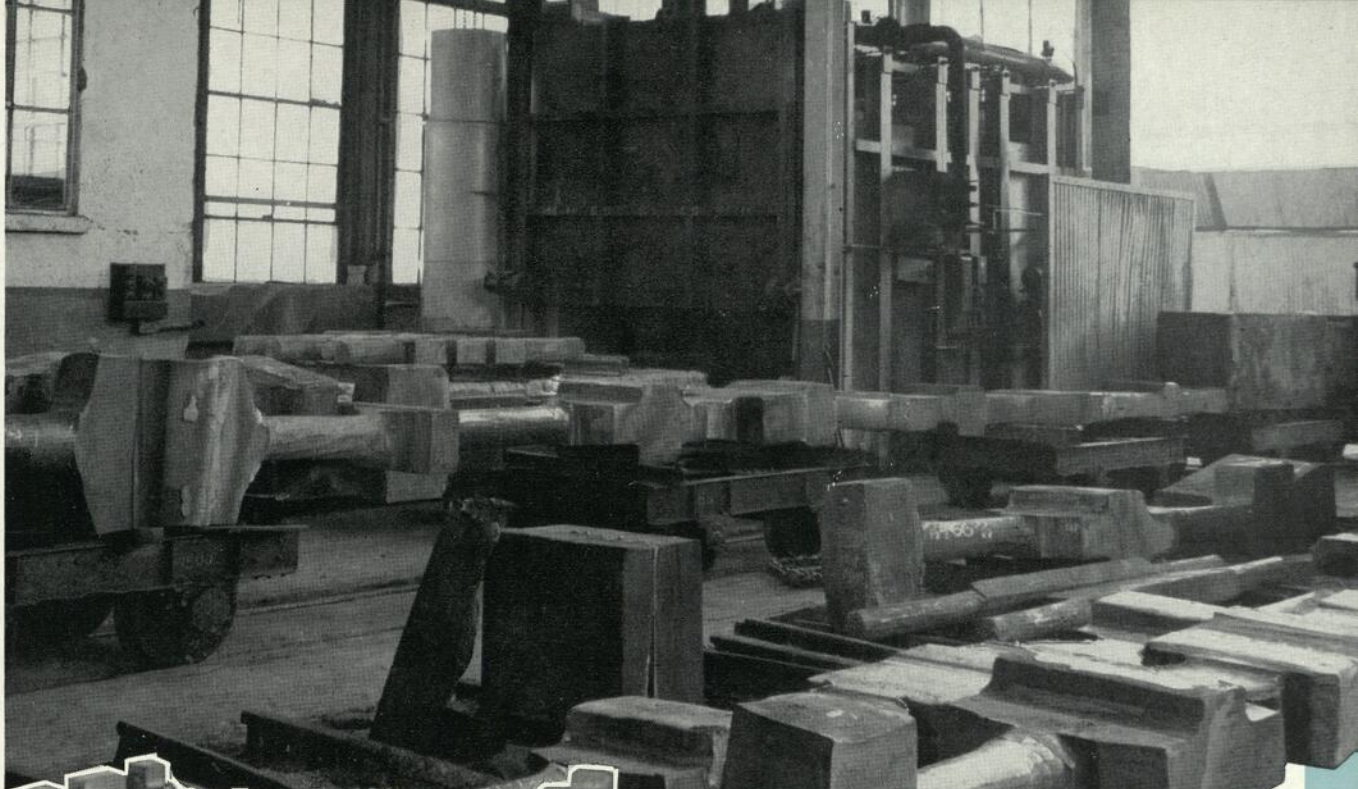
Steel Forgings

DOMINION BRIDGE forgings are produced by workmen skilled by long experience and under the supervision of trained metallurgists for the purpose of ensuring the best properties in the finished forgings with minimum allowance for machining. They can be supplied in the rough, rough-machined or finish-machined state.

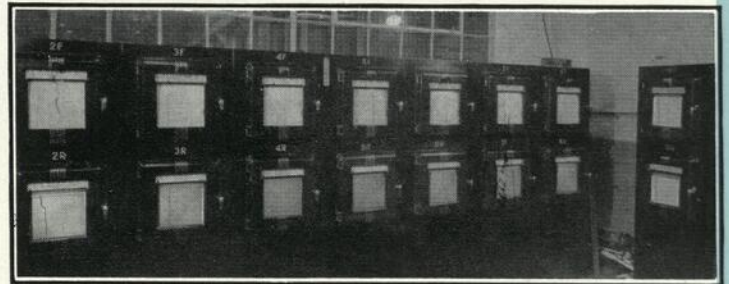
Right: Withdrawing large forging from furnace.



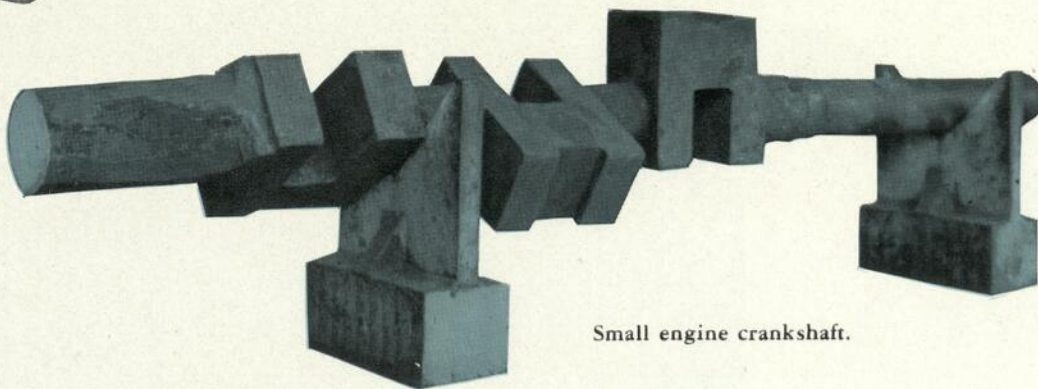
Right: Part of forge shop, showing 25 foot double-ended normalising furnace in background.



Above: Large connecting rods. Similar forgings in the rough are seen in the upper illustration.

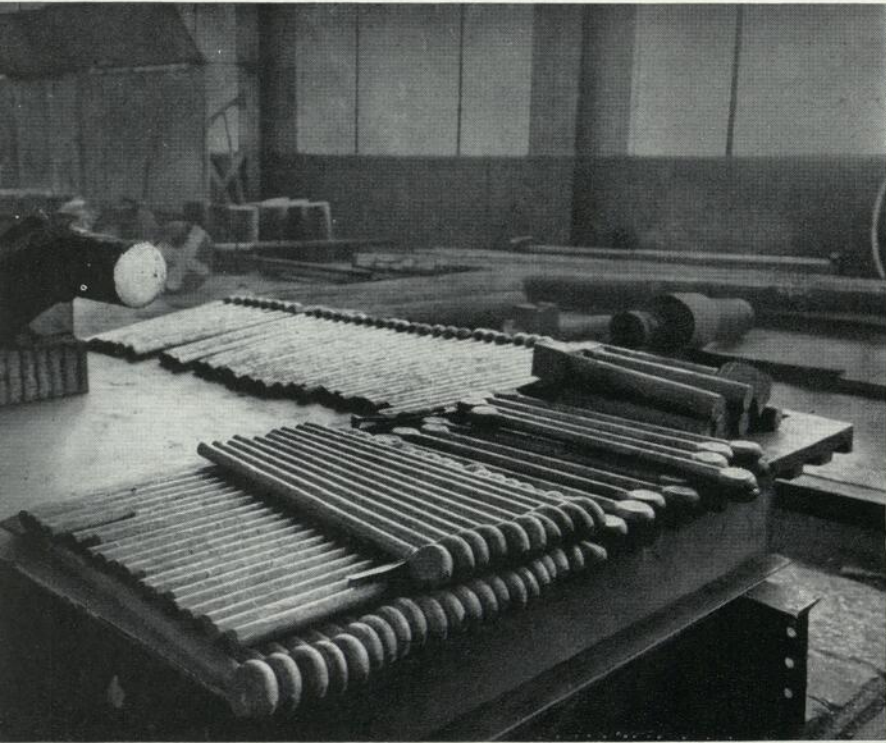
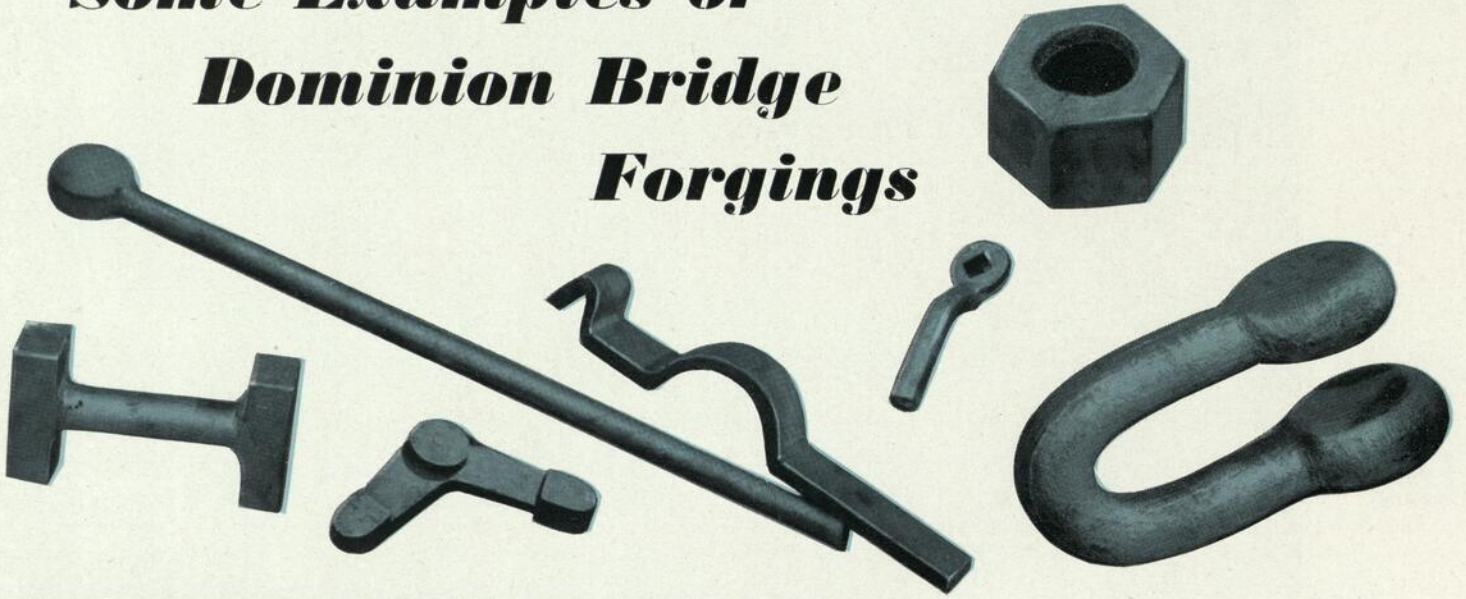


Above: Some of the recording pyrometers which ensure accurate control of furnace temperatures for soaking billets prior to forging and for subsequent normalising.

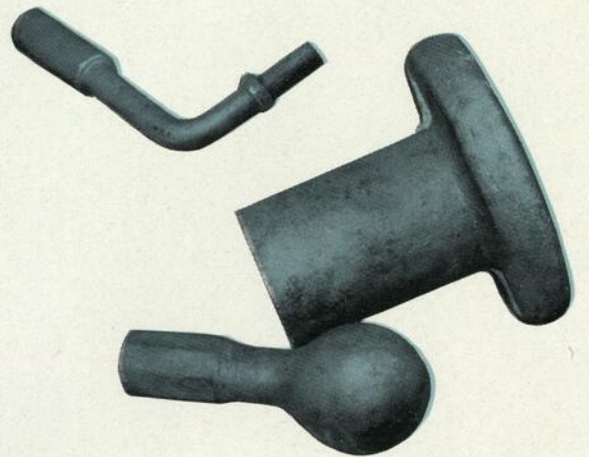


Small engine crankshaft.

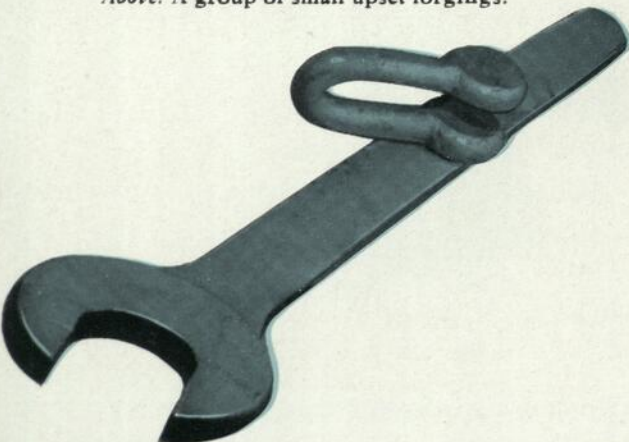
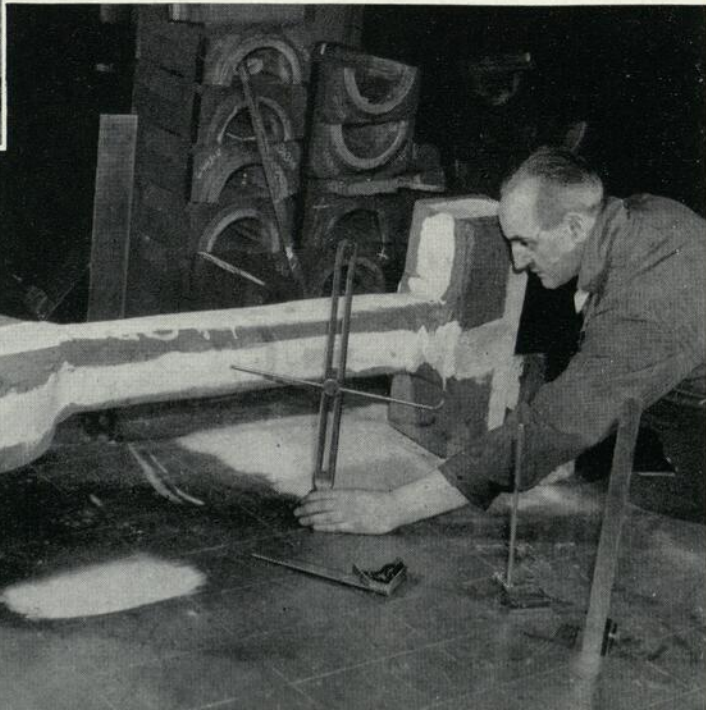
Some Examples of Dominion Bridge Forgings



Above: A group of small upset forgings.

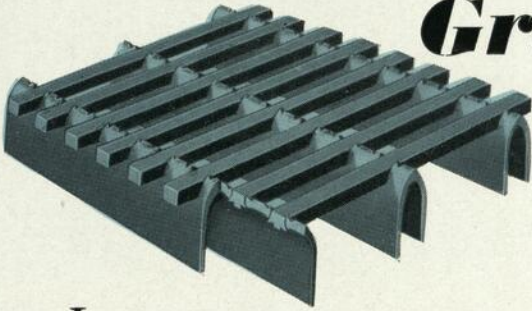


Below: A marine engine connecting rod, being marked off for machining.



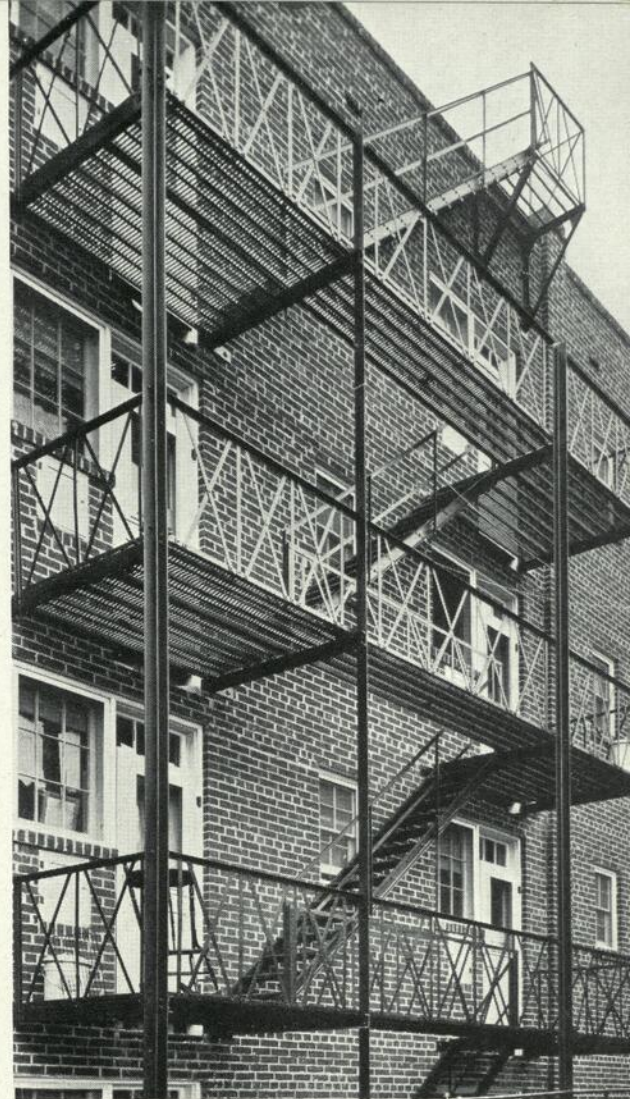
Safety

Gratings



IN the construction of modern buildings and industrial plants increasing attention is being paid to the light steelwork for stairs, fire escapes, walkways, gratings and so on. The Company maintains a large department specialising in such work, and its services are at the disposal of owner, architect and contractor.

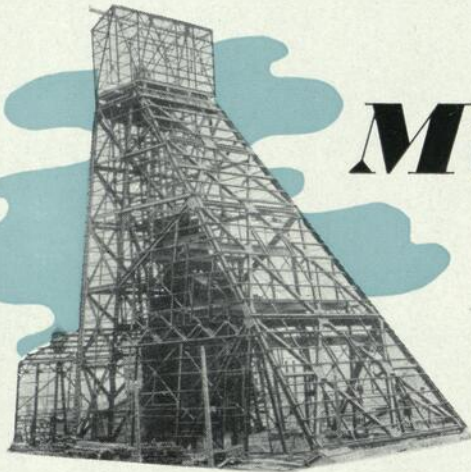
In this field the Company's "M & M" safety gratings and safety steps deserve particular mention, because of their scientific design and construction. The illustration above shows that the mat bars are locked into the bearers, the ridges of which are raised slightly above the general level of the mat, thus providing an absolutely rigid, safe, and non-slip surface. Other features are: long life; shallowness of the mat permitting the maximum passage of light and flexibility of the design to suit loading and service conditions.



Above: Stairs for service and emergency use equipped with "M & M" platforms and treads.

Light Steelwork

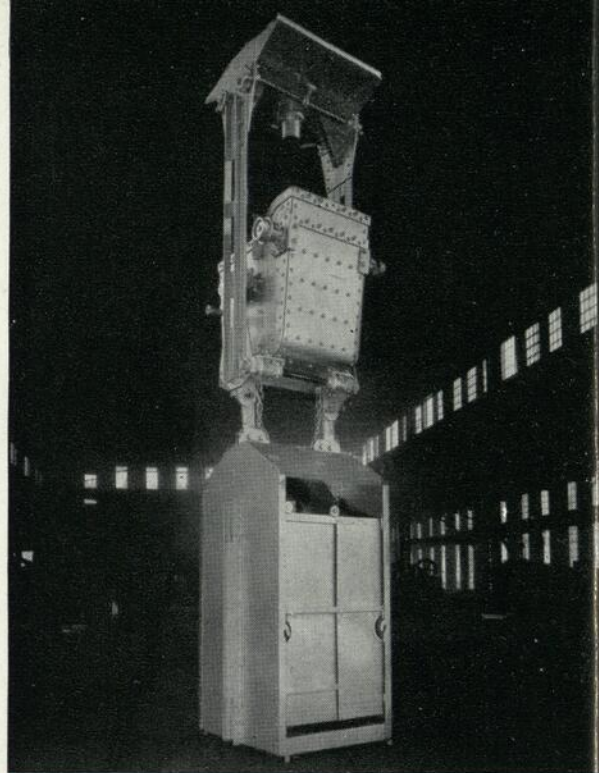
These two views show grain elevators at Montreal with walkways and stairs equipped with "M & M" safety gratings and treads.



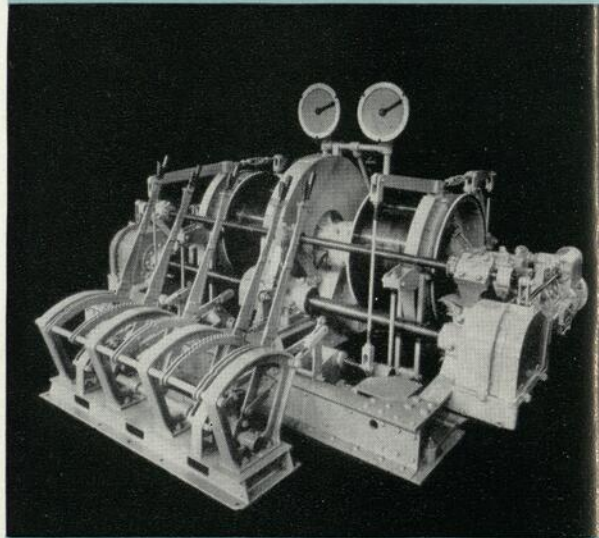
Mining

MINING is one of Canada's greatest industries and her mineral resources are enormous. Certain of the Company's plants are situated near the largest mining districts where they have grown up with the industry, and a wealth of first-hand knowledge of its requirements has been accumulated. This experience has been broadened by bringing engineers into the organization from other countries who have specialised in particular fields, with the result that Dominion Bridge is in a position to design and fabricate the most efficient mining equipment.

The illustrations show typical examples of the range of manufacture, which includes pumping, screening and haulage equipment, blasting sets, car dumpers, mine cars and skips of all types.

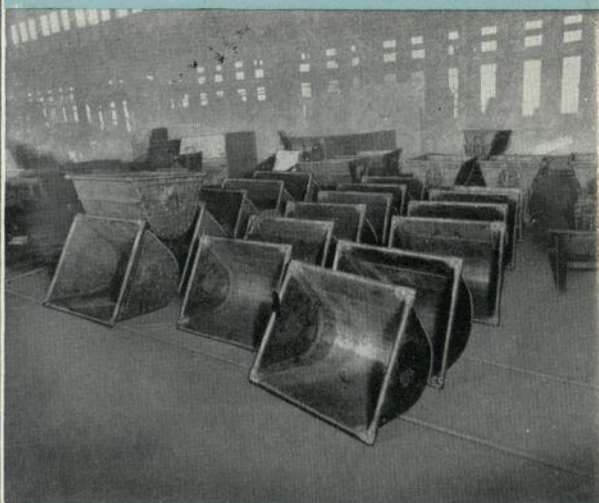


Above: Combination bucket and cage.

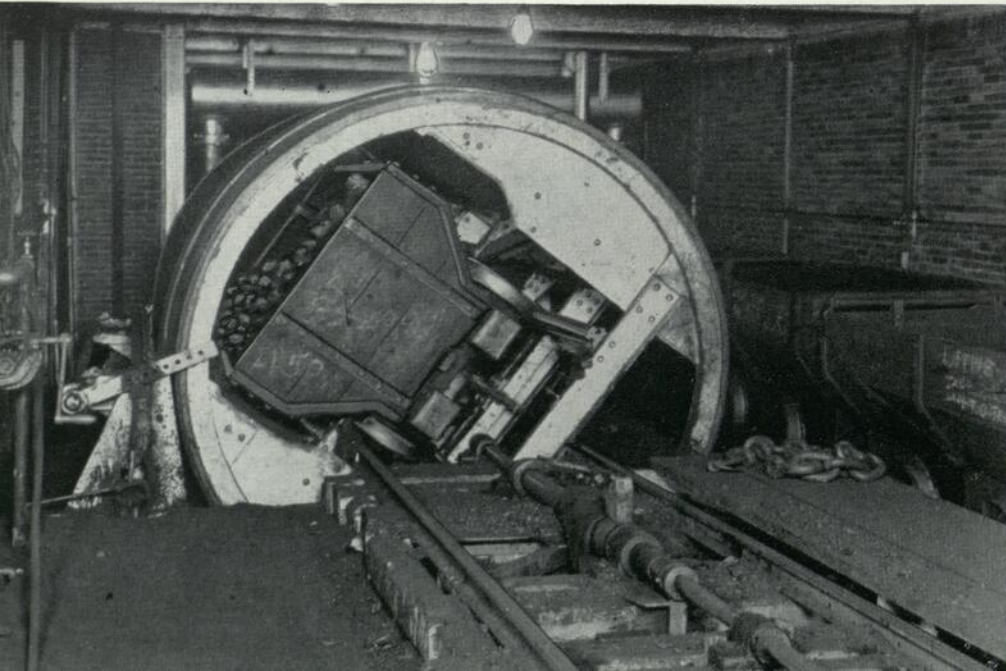


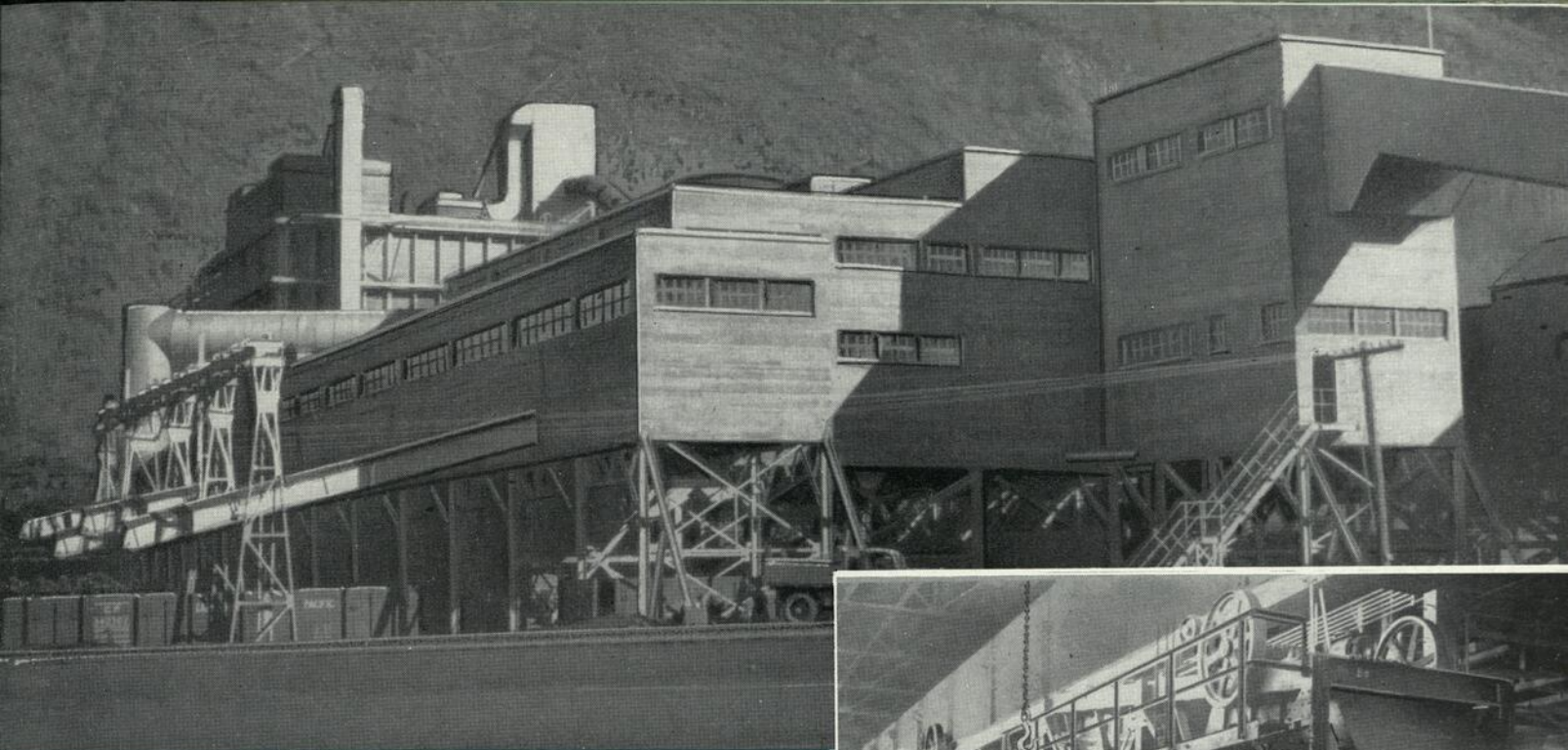
Above: Electric hoist.

Below: Group of mine cars.

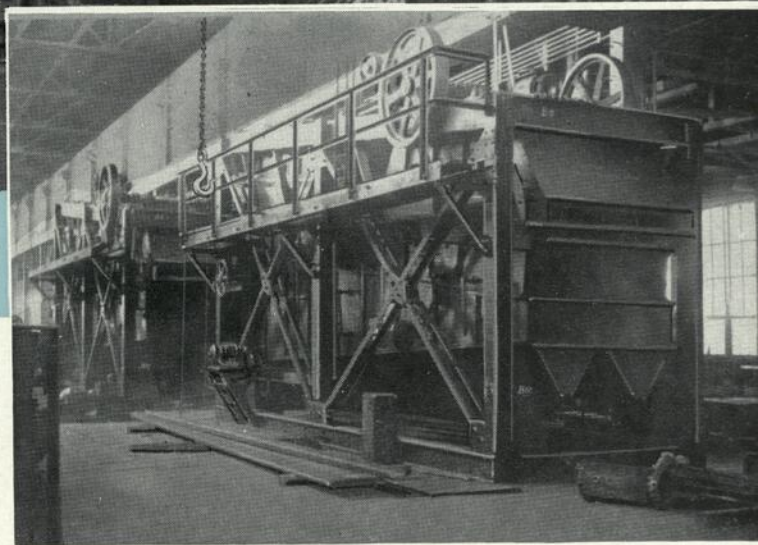


Left: Rotary car dumper.





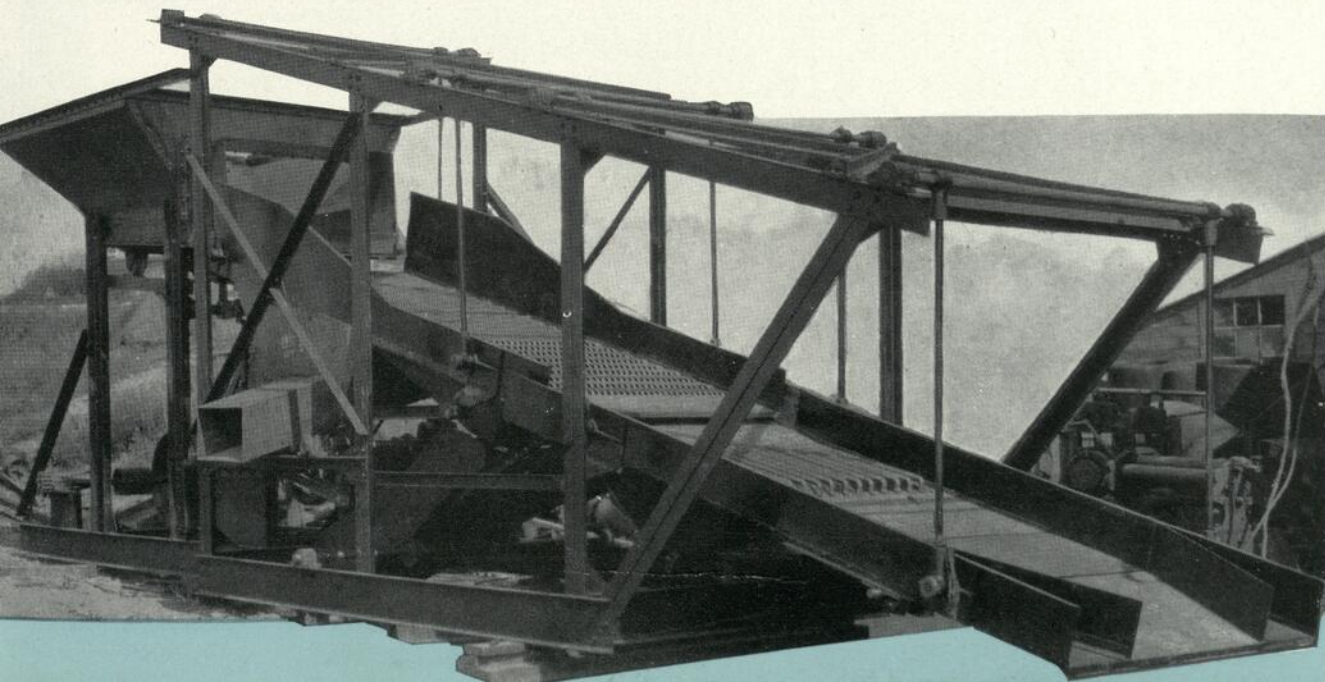
Above: Complete coal washery at Michel, Alta. built by the Company.
Right: McNally-Vissac Coal Dryer, automatically dries coal after wet washing. The standard dryer is 6'-0" wide and has a capacity of 50 to 90 tons per hour depending on the type of coal.



Coal Processing

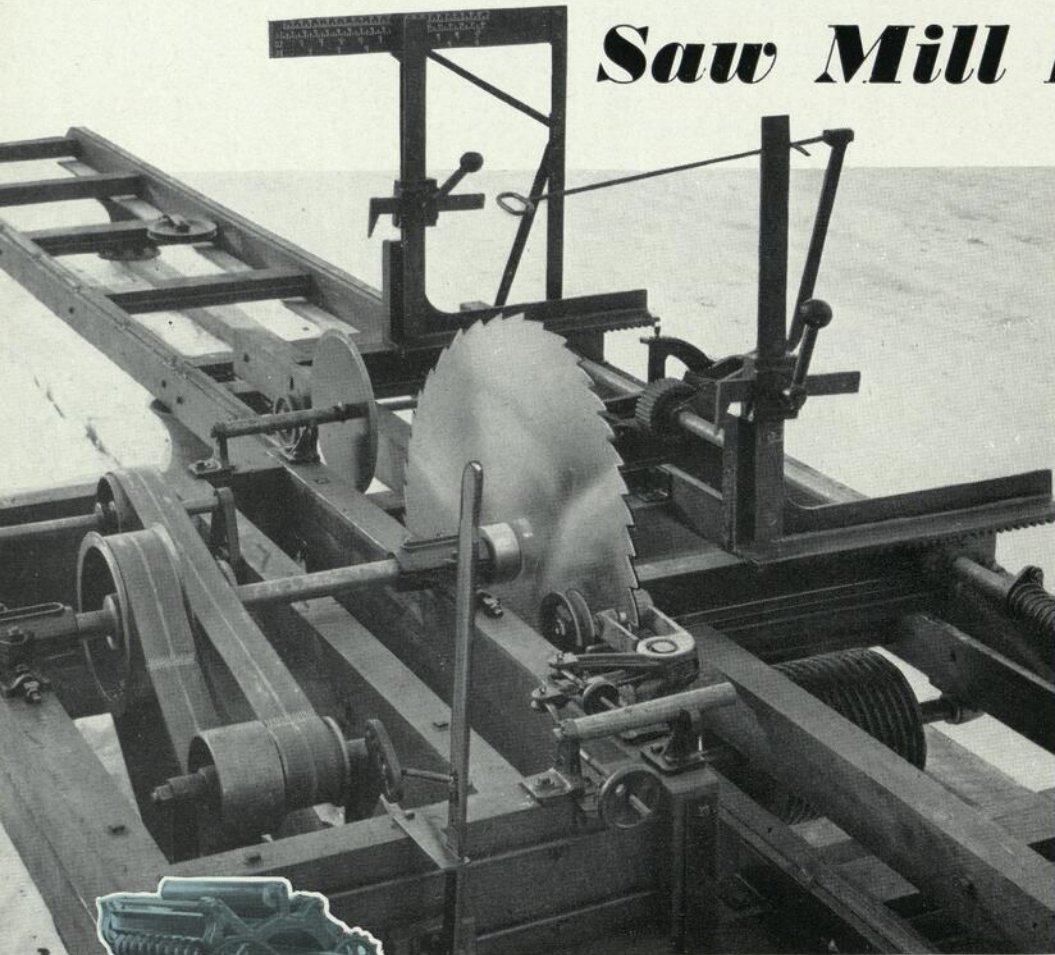
THE technique of coal processing tends to become increasingly elaborate with the growing demand for a more uniform and cleaner-burning product. The Dominion Bridge Company is thoroughly familiar, by long experience, with all the operations of screening, weighing, breaking down, sorting and dry and wet cleaning and has designed, built and erected many complete coal processing plants.

Amongst the variety of equipment built by the Company for this purpose, special mention is made of the Vissac Jig, for the automatic and complete separation of coal from stone and refuse, and of the McNally-Vissac automatic coal drier.



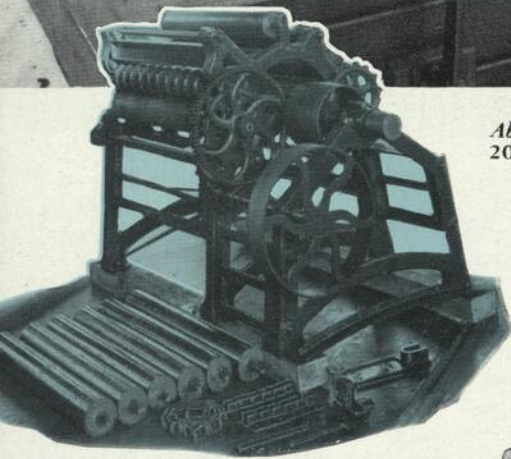
Shaking screen for automatic sorting of coal into marketable sizes.

Saw Mill Equipment

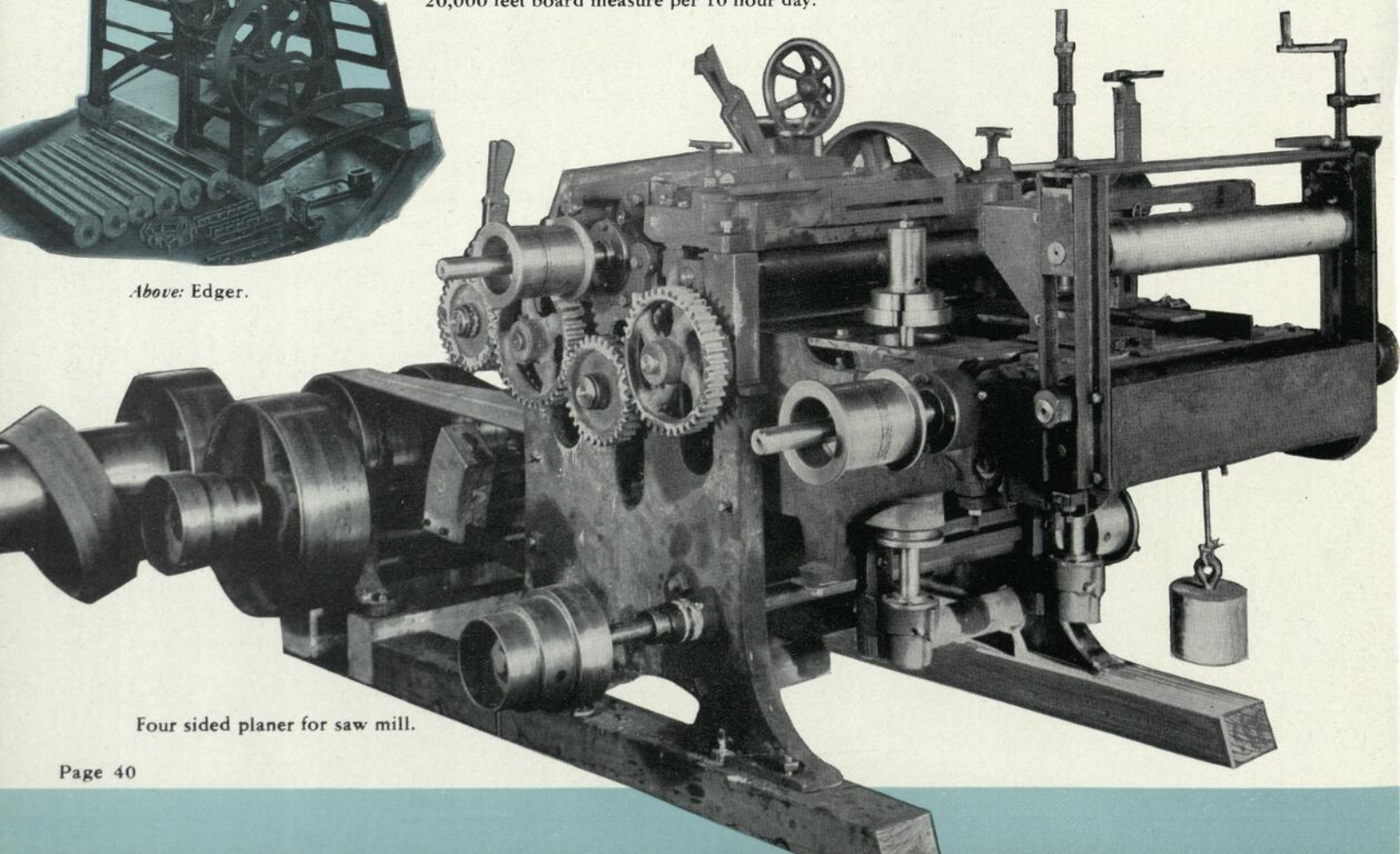


DOMINION BRIDGE Company manufactures a complete range of portable saw mill equipment noted for its light weight and general utility. The saw mill itself, equipped with a 48" to 52" saw, will cut logs up to 30" diameter, and used in conjunction with an edger, has an output of approximately 20,000 feet board measure in a ten hour day. Other equipment supplied by the Company include trimmers, re-saws, four sided planers, exhaustor fans and chain conveyors. A complete outfit for a small portable mill containing one each of the units mentioned can be driven by a 120 H. P. engine.

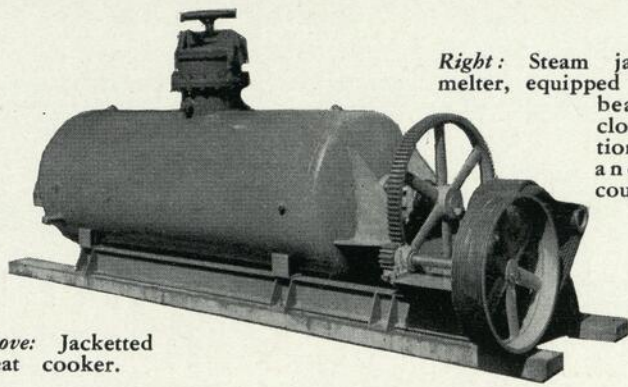
Above: Saw mill, capacity: approximately 20,000 feet board measure per 10 hour day.



Above: Edger.

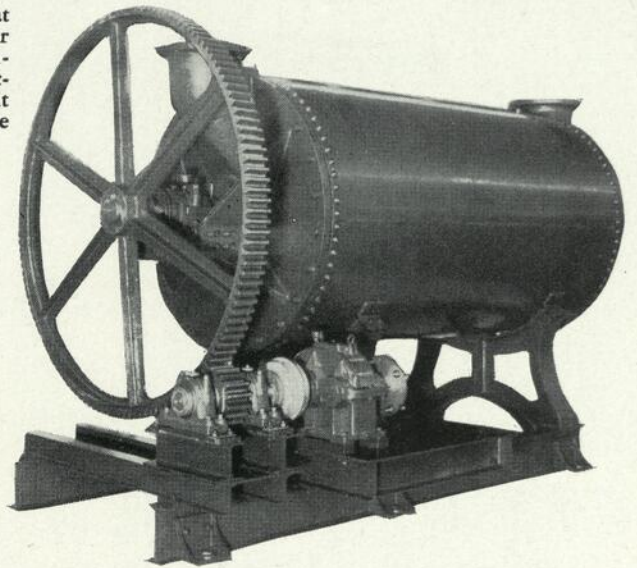


Four sided planer for saw mill.



Above: Jacketed meat cooker.

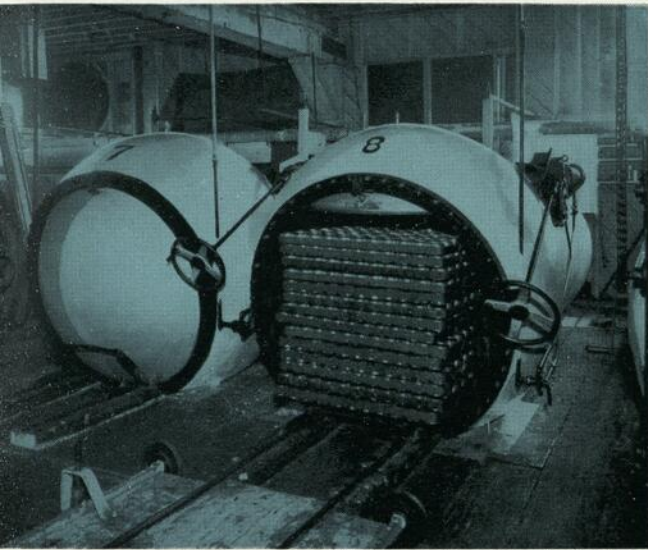
Right: Steam jacketed fat melter, equipped with roller bearings, enclosed reduction gear unit and flexible coupling.



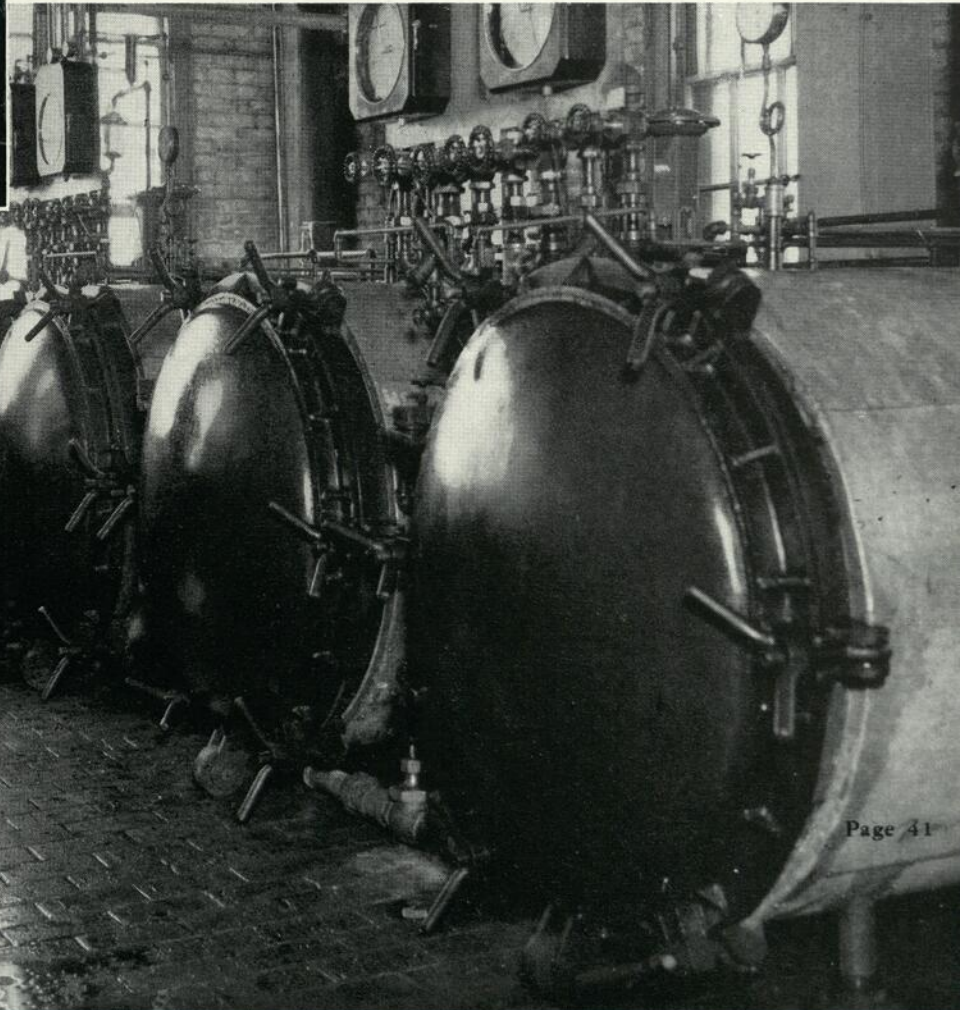
Packing House and Cannery Equipment

THE Company supplies practically all packing house requirements from the equipment for hoisting the live animals into the packing house to the various retorts in which both the edible and inedible products are processed. Working closely with the large Canadian packing houses designs have been developed which provide low maintenance and operating costs.


The Company also supplies equipment for cold storage plants and canneries, the latest development being a fish canning retort with "eyelid" door, illustrated on the left.



Above: Fish cooking pressure retort with "eyelid" door; saves floor space, head clearance and time in door operation (Patents Pending).



Battery of meat cooking retorts.




Grain Handling and Elevator Equipment

Country grain storage elevator, used as a local receiving station for grain brought from neighbouring farms by truck. All machinery and other equipment for such elevators is supplied by the Company, which is also in a position to prepare complete elevator designs.

THE Company manufactures complete equipment for country grain storage elevators of the type illustrated above, including all machinery for unloading and weighing of incoming grain, elevating, cleaning and subsequent weighing.

In the case of large elevators at important ports the Company's service includes the design and manufacture of special grain car unloaders for use when the grain is brought to the elevator by rail.



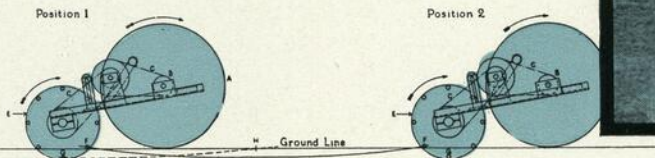
Dominion-Howe grain car unloader for use in large elevators. The whole operation of removing the grain from the car is performed mechanically. Illustration shows railroad car in tipped position.

Agricultural Implements

ONE of the Western Branches, situated in some of the richest farming country in the world, has developed a line of agricultural machinery which has been tested and improved over a long period.

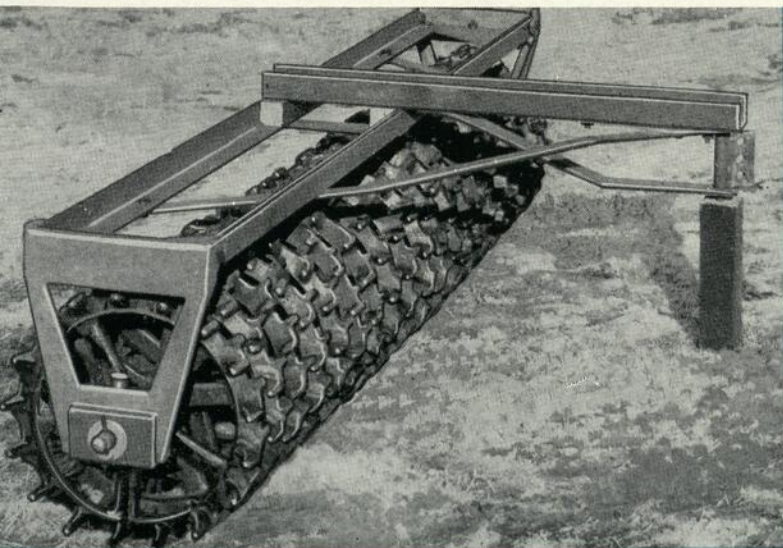
Two implements in particular have had remarkable effects in increasing farming efficiency wherever that have been used. These are illustrated alongside.

The "MILLS" Wire Weeder: A great advance on ordinary rod weeders. In this weeder, the speed of the drum is mechanically retarded to one third of the speed of the land wheel by a chain and sprocket retarder. Thus a dragging action is produced, loosening the weeds which are deposited on the ground with roots up. The diagram shows how every piece of ground is worked through by *two* cables taking all weeds with deep as well as shallow roots. Four models are supplied for horse or tractor draft. (Illustrated right and above).

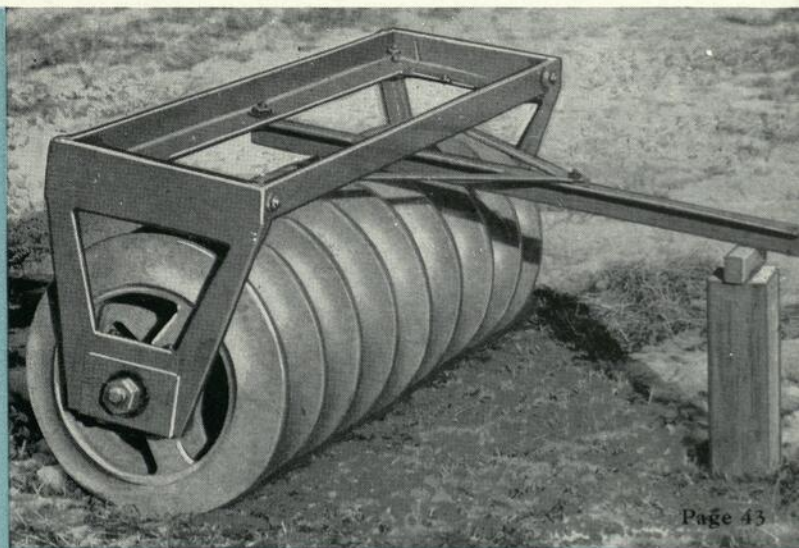


The "NOBLE" Land Packer: The use of this implement, drawn behind a drill or plow or as a separate unit, has the effect of packing the land firmly around the grain, thus conserving moisture and leaving the soil in ridges to prevent drifting and effects of frost on young growth. The net result is a marked improvement in speed of germination and in crop yield, whilst the draft required is small. They are supplied in several sizes and spacings in two main types for heavy land and for medium or light land.

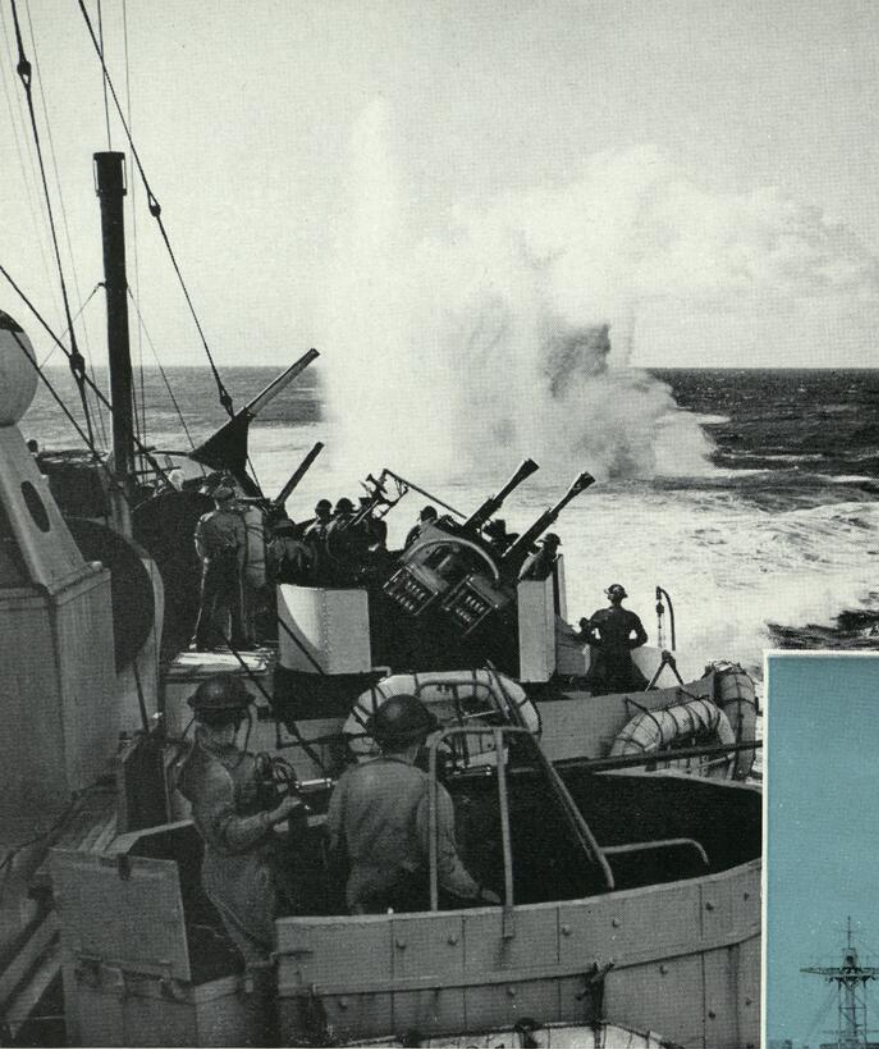
Land packer for use on heavy land, with "Crow-foot" wheels.



Land packer for medium and light land, equipped with "V" wheels.

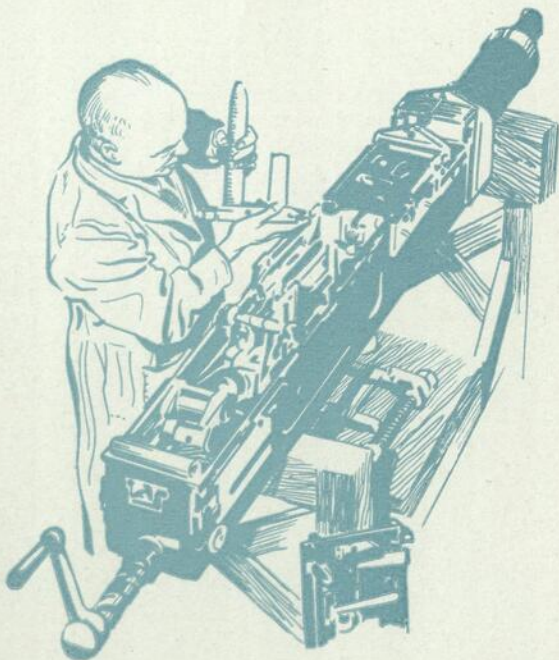


Dominion

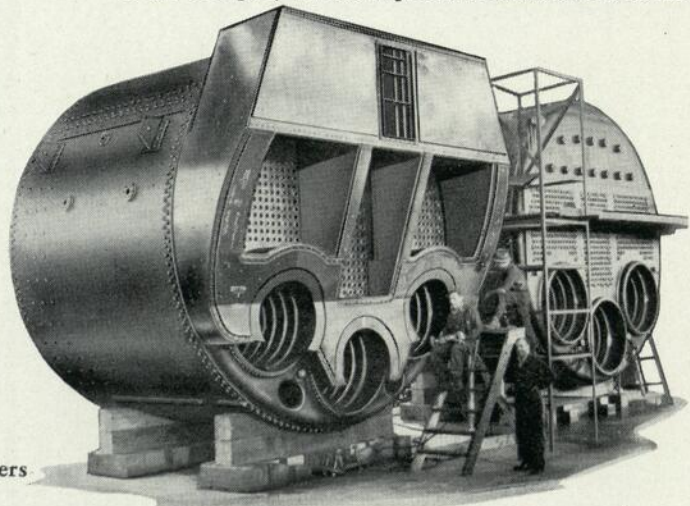


Left: Canadian Corvette in Action. Note the two pounder mark VIII anti-aircraft "Pom Pom" guns made by Dominion Bridge Company. Detail view bottom left.

Below: The Vickers two-pounder Mark VIII gun in course of assembly at the Vancouver plant. This is the most complicated light gun in use in the British Navy.



Above: Fabricating Cargo Ships for the Battle of the Atlantic. One of the Company's most important contributions to the war effort.



Right: Scotch marine boilers

Bridge AT WAR

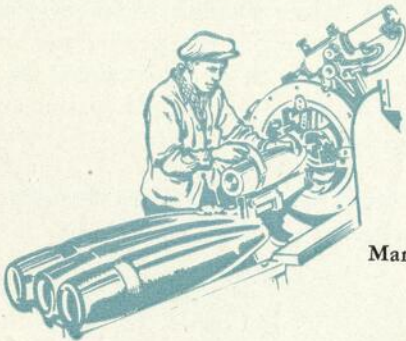
THE Dominion Bridge Company was naturally called upon to make a major contribution to the national war effort. The response was immediate, and the load was particularly heavy, since the Company was required to organize for its own production of many strange and complicated tools of war and at the same time to build and equip huge war plants throughout the country.

The illustrations give an idea of the scope of the Company's direct war production and of the resources of its organization.

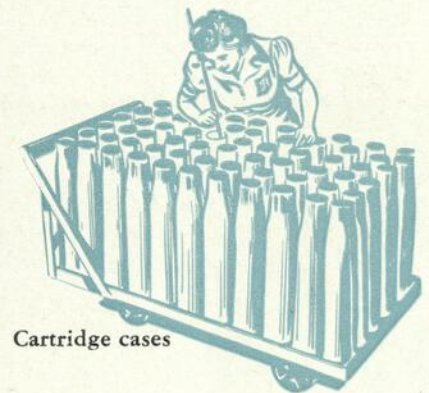
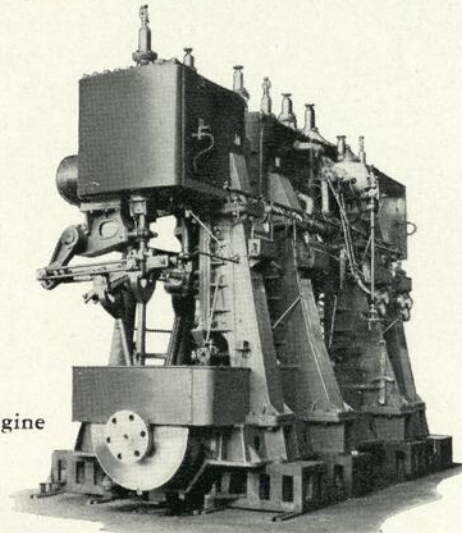
Partial List of Dominion Bridge Direct War Products

Aircraft hangars, Aircraft Testing Equipment, Ammunition Boxes, Anchors, Arrestor gear for Aircraft Carriers, Boilers and Condensers, Buoys, Cargo Ships and Transport Ferries, Cartridge Cases, Floating Dry-Dock, Guns and Gun mounts, Lewis Gun Shields, Marine Engines, Paravanes, Practice bombs, Rocket Launching Equipment, Shells, Ships Fittings, Submarine net equipment, Tank parts.

Machining artillery shells



Marine engine



Cartridge cases

Floating dry dock.



Re-building heavy gun mount.



Experience in Solving Manufacturing Problems

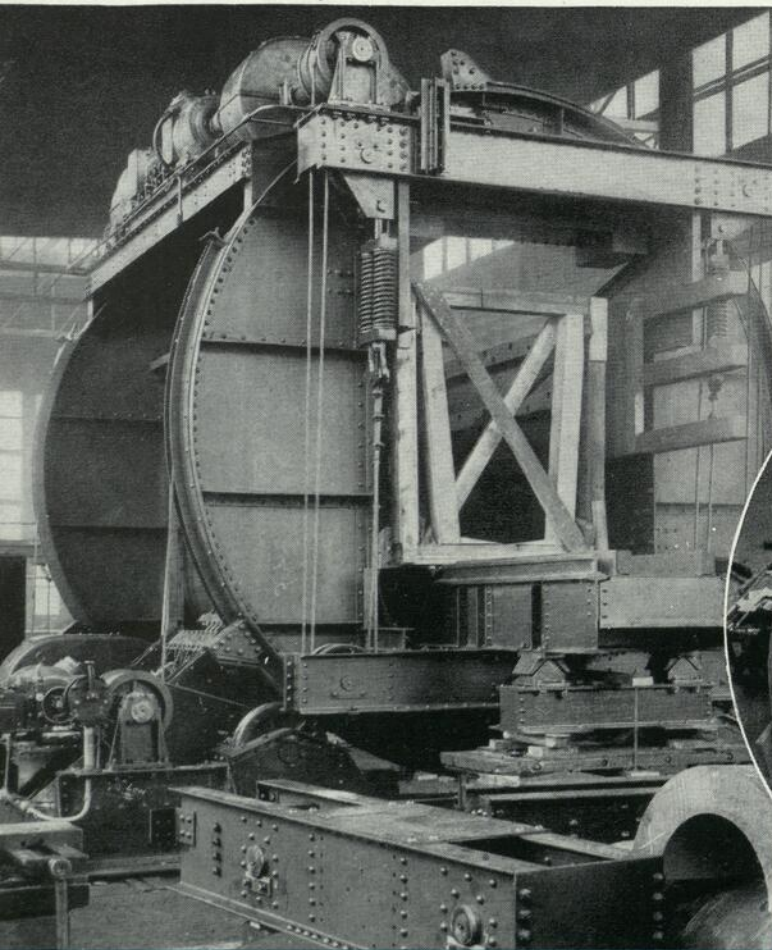


ON THE OTHER PAGES OF THIS BOOK are shown some of the principal products of the Company. They fall into various groups such as handling equipment, buildings or steel platework and call for specialized engineering knowledge and manufacturing skill.

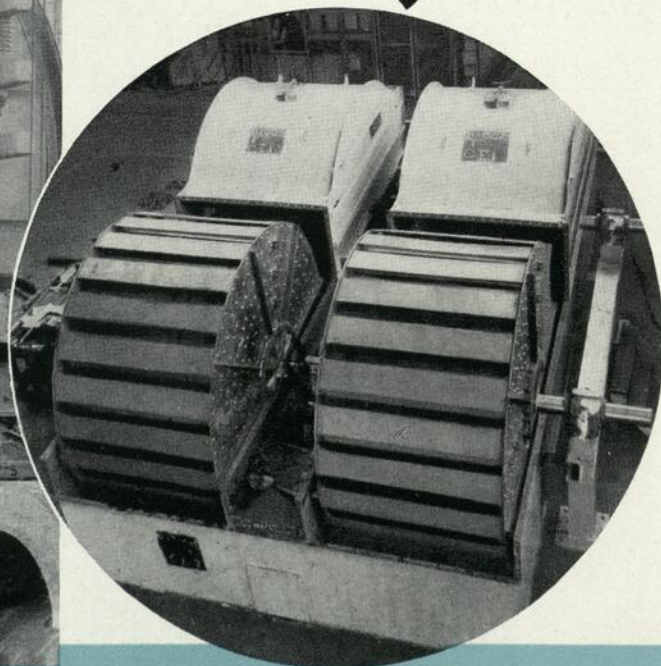
Another and quite distinct phase of the Company's activities is the production of unusual equipment to our customers' designs, or to designs developed by us to meet their requirements.

The examples on this page illustrate the breadth of our experience in this field.

Page 46



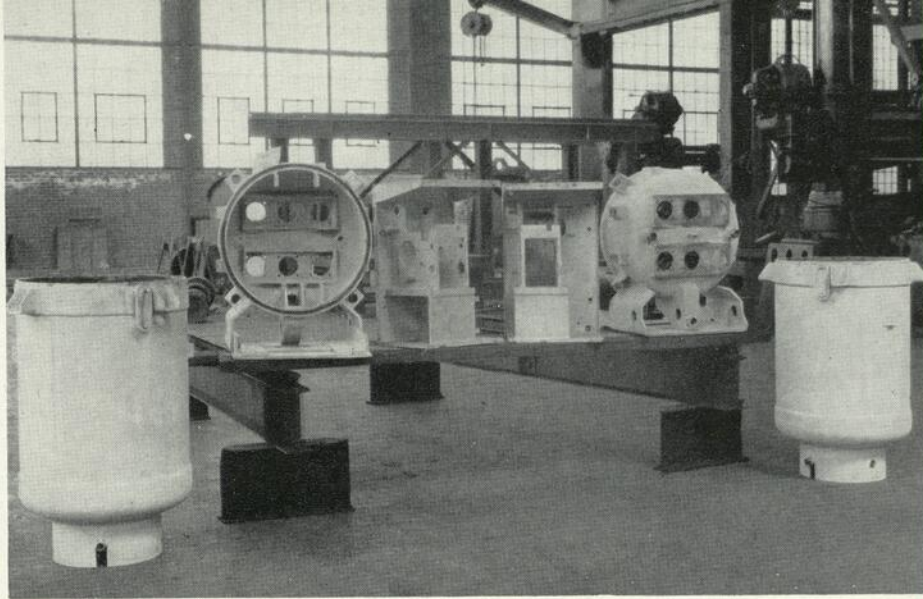
Above: Special design of rotary car dumper for Britannia Mines, B.C.



Above: Two large Cascade Evaporators built to the order of C. L. Durkee for use in paper mills.

*Partial List of Specialized Equipment
built by Dominion Bridge to order:*

- Agitating & Mixing Equipment
- Bottle Washing Machines
- Brewery Machinery
- Buoys
- Car Dumpers
- Coal and ore Bridges
- Coke Quenching Cars
- Concrete Mixing Equipment
- Dredge Dippers
- Floating Dry Docks
- Koppers Coke Plants
- Lift Locks
- Lock Gate Operating Machinery
- Locomotive Transfer Tables
- Metal Refining Equipment
- Rail Straightening Machines
- Scows

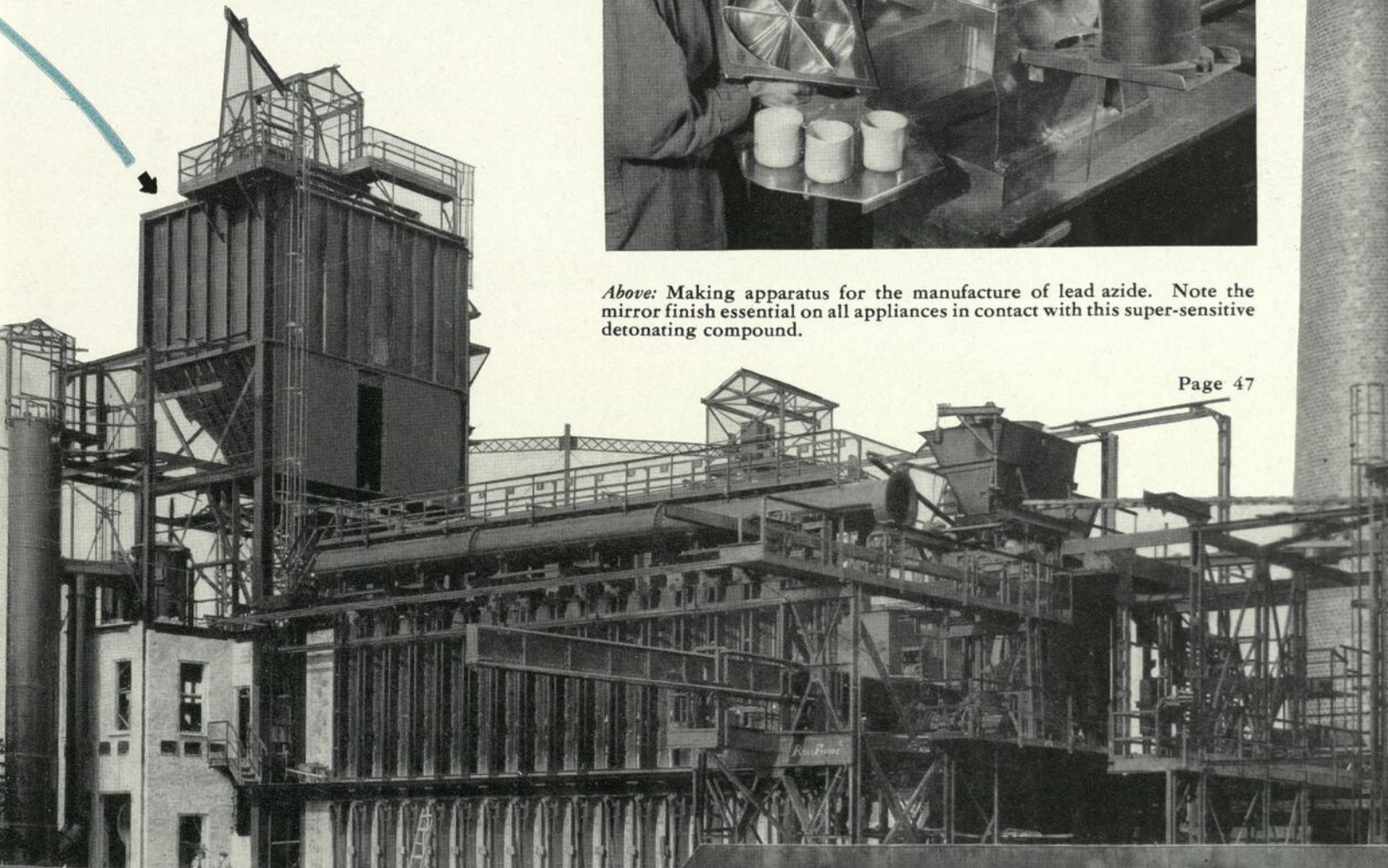


Above: An intricate welding job. Tanks, heads and solenoid frames produced in connection with a new electrical development.

Below: A complete Koppers Coke Plant fabricated and erected by the Company's Western division.



Above: Making apparatus for the manufacture of lead azide. Note the mirror finish essential on all appliances in contact with this super-sensitive detonating compound.





DOMINION BRIDGE COMPANY LIMITED

Plants, Offices and Associate Companies:

HEAD OFFICE AND MAIN PLANT: LACHINE (Montreal) Que., Canada

Post Office Address: Box 280, Montreal, Que. Cable Address "Dominion"

Codes: A.B.C. 6th Edition & Bentleys.

Branch Offices and Works:

Montreal — Ottawa — Toronto — Winnipeg — Calgary — Vancouver

Agencies: Edmonton, Regina

Wholly owned Subsidiary Companies:

ROBB ENGINEERING WORKS LIMITED
Amherst, N.S.
SAULT STRUCTURAL STEEL COMPANY LIMITED
Sault Ste. Marie, Ont.
MANITOBA BRIDGE & IRON WORKS LIMITED
Winnipeg, Man.
MANITOBA ROLLING MILL CO. LIMITED
Selkirk, Man., and Calgary, Alta.
RIVERSIDE IRON WORKS LIMITED
Calgary, Alta.

Associate Companies:

DOMINION ENGINEERING COMPANY LIMITED
Montreal, P.Q.
EASTERN CANADA STEEL & IRON WORKS LIMITED
Quebec, P.Q.
DOMINION HOIST & SHOVEL COMPANY LIMITED
Montreal, P.Q.
STANDARD IRON WORKS LIMITED
Edmonton, Alta.

List of Main Products, fabricated by the Company and its wholly owned subsidiaries:

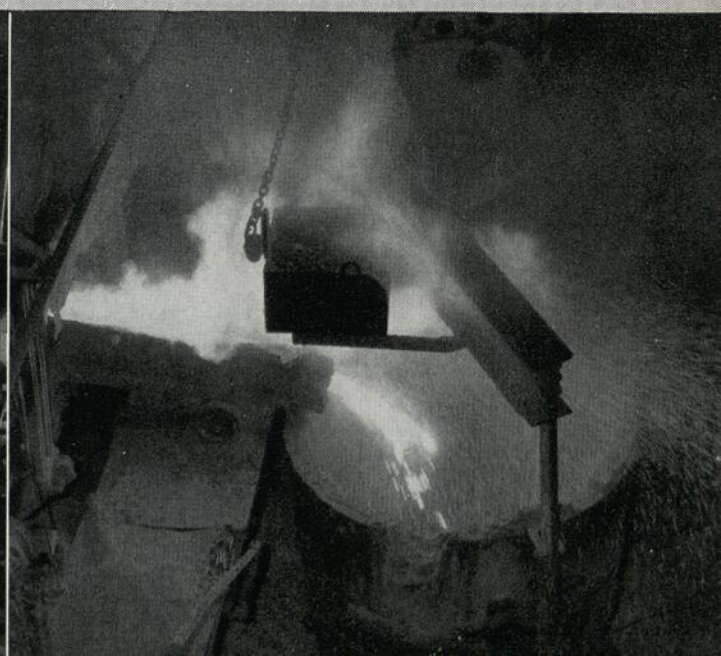
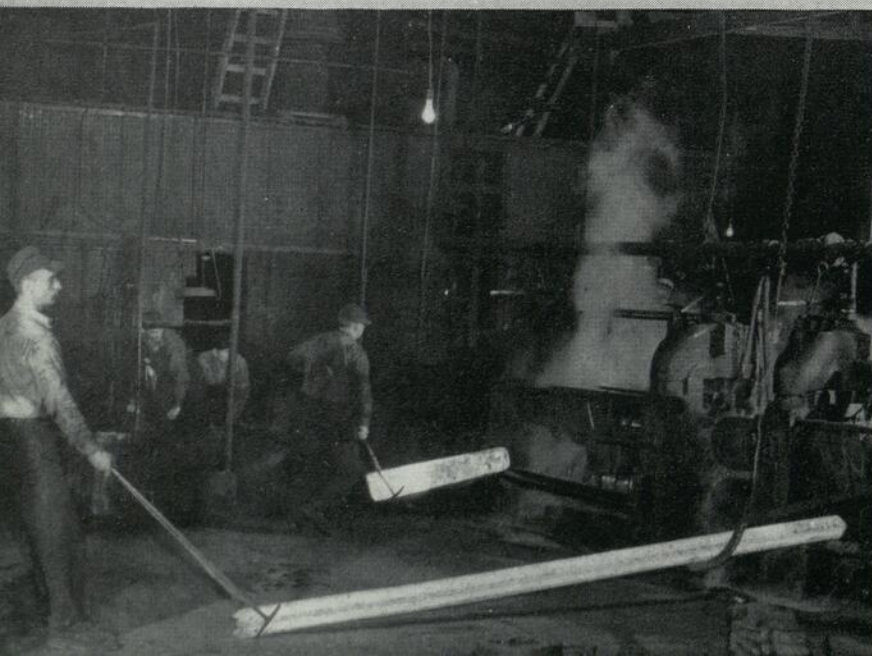
Agricultural Implements
Angles, steel
Bars, Steel, round, square and flat
Boilers (Hot Water)
Bridges (Fixed and movable).
Buckets, dredge, excavating etc.
Cannery Equipment
Castings, Steel
Car Dumpers
Coal Processing Equipment
Coal and Ore Bridges
Cranes of all types
Derricks
Forgings (Carbon and Alloy Steel)

Grain Elevator Equipment
Grain Handling Equipment
Hoppers, Coal and Ore
Hydraulic Regulating Gates and Equipment
Lift Locks
Log sluices
Locomotive Turntables and Transfer Tables
Material Handling Equipment
Mine Equipment
Oil Well Equipment and Supplies
Ornamental Ironwork
Packing House Equipment
Pipes, Steel, Concrete — lined
Platework (medium and heavy, of all types)

Pole Line Hardware
Pulverised Fuel Equipment
Pressure Vessels
Railroad sections
Railroad and Industrial Track Work
Rails, steel
Safety Gratings
Saw Mills
Steam Generating Equipment
Steelwork for Buildings (light)
Steel Structures
Tanks
Transformer and Transfer Trucks

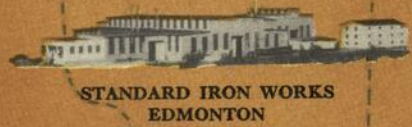
STEEL, THE RAW MATERIAL

On the other pages of this booklet are described some of the many Dominion Bridge products which are wholly or mainly fabricated in steel. In addition, certain divisions of the Company produce rolled steel products, also steel and iron castings. Illustrated are two views in one of the rolling mills.



The **DOMINION BRIDGE** *Company*

extends across Canada...



STANDARD IRON WORKS
EDMONTON



DOMINION BRIDGE COMPANY
VANCOUVER

MANITOBA ROLLING MILL, CALGARY



DOMINION BRIDGE COMPANY AND
RIVERSIDE IRON WORKS, CALGARY



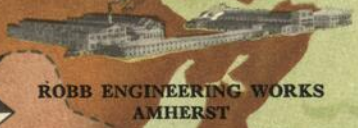
MANITOBA ROLLING MILL, SELKIRK

MANITOBA BRIDGE COMPANY, WINNIPEG



DOMINION BRIDGE COMPANY, WINNIPEG

HEAD OFFICE AND MAIN PLANT
LACHINE (NEAR MONTREAL)



ROBB ENGINEERING WORKS
AMHERST



SAULT STRUCTURAL STEEL COMPANY,
SAULT STE. MARIE



DOMINION BRIDGE COMPANY
OTTAWA



DOMINION BRIDGE COMPANY,
TORONTO

THIS MAP SHOWS THE STRATEGIC LOCATION AND ACTUAL APPEARANCE OF OUR VARIOUS PLANTS ACROSS CANADA. IN THESE PLANTS ARE MADE THE ENGINEERING PRODUCTS DESCRIBED IN THIS BOOK AND LISTED ON THE OPPOSITE PAGE.

... and serves the **WORLD!**



BNQ



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