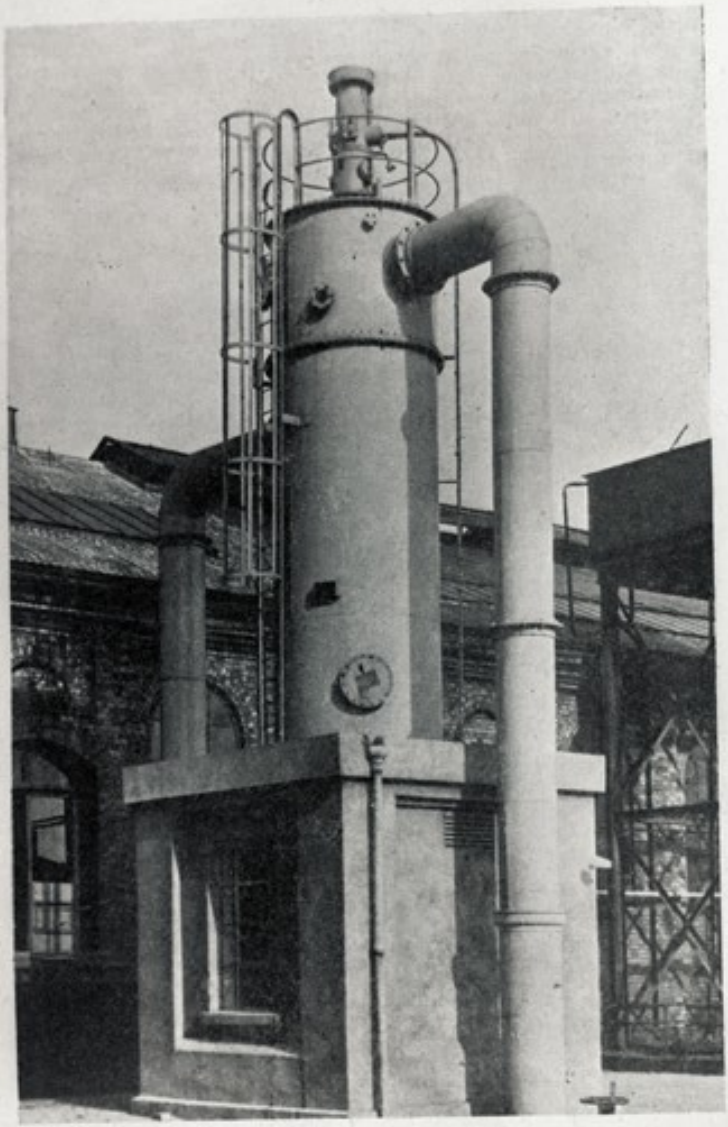


FIGURE 4.—*Whessoe Woodall-Duckham Tubular-type Electro-detarrer.*

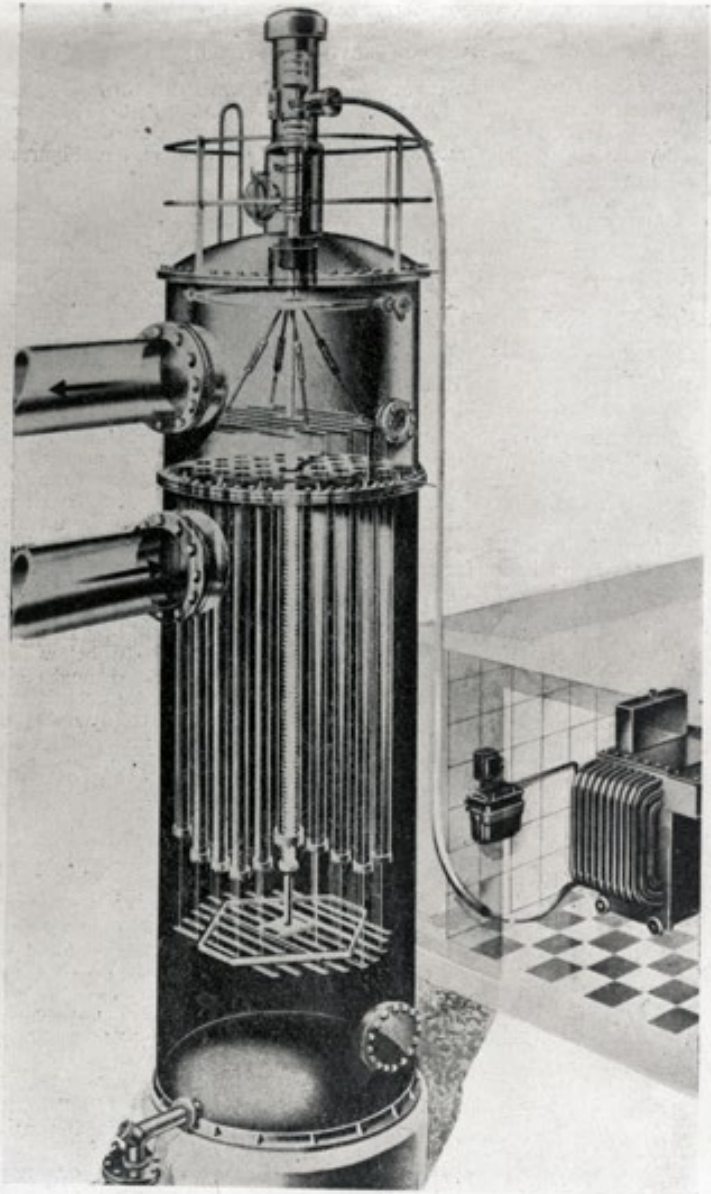


FIGURE 5.—*Photograph Showing Isometric Impression of Internal Construction of Whessoe Woodall-Duckham Tubular-type Electro-Detarrer.*

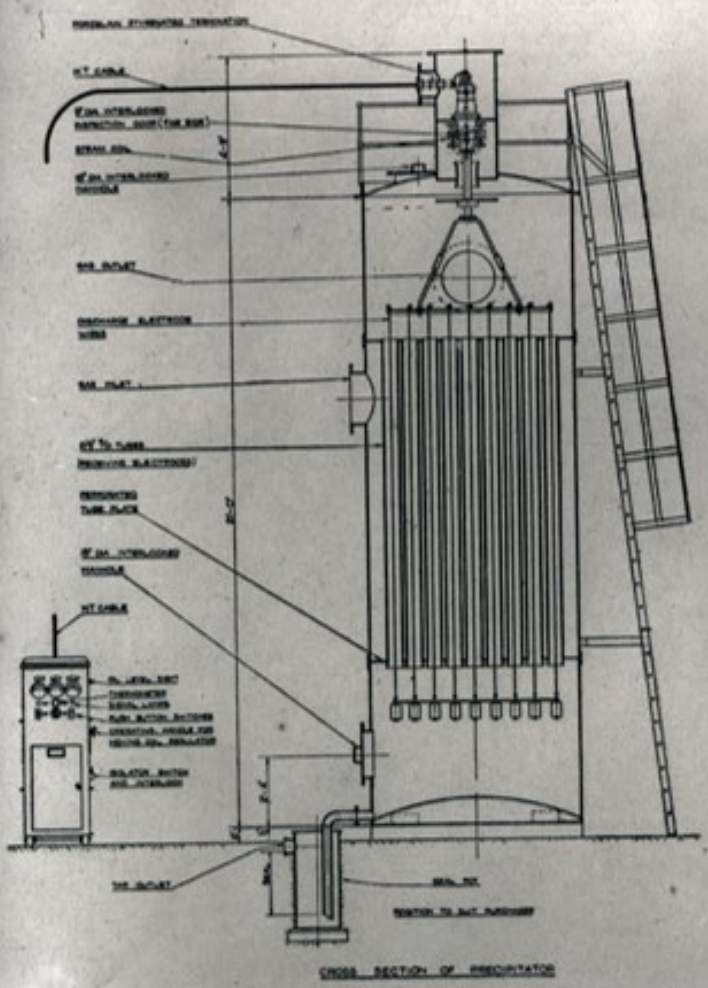


FIGURE 6.—*Sectional Elevation Drawing of Simon-Carves Tubular-type Electro-Detarrer. (By courtesy of the makers.)*

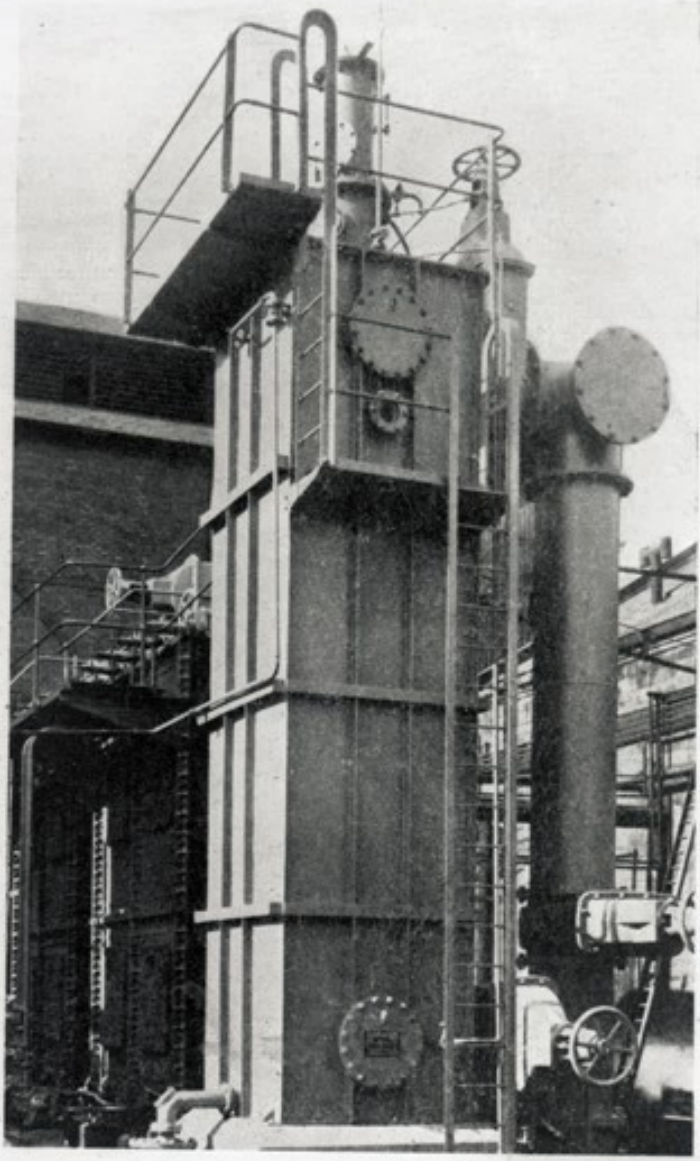


FIGURE 7.—*Whessoe Woodall-Duckham Plate-type Electro-Detarrer.*

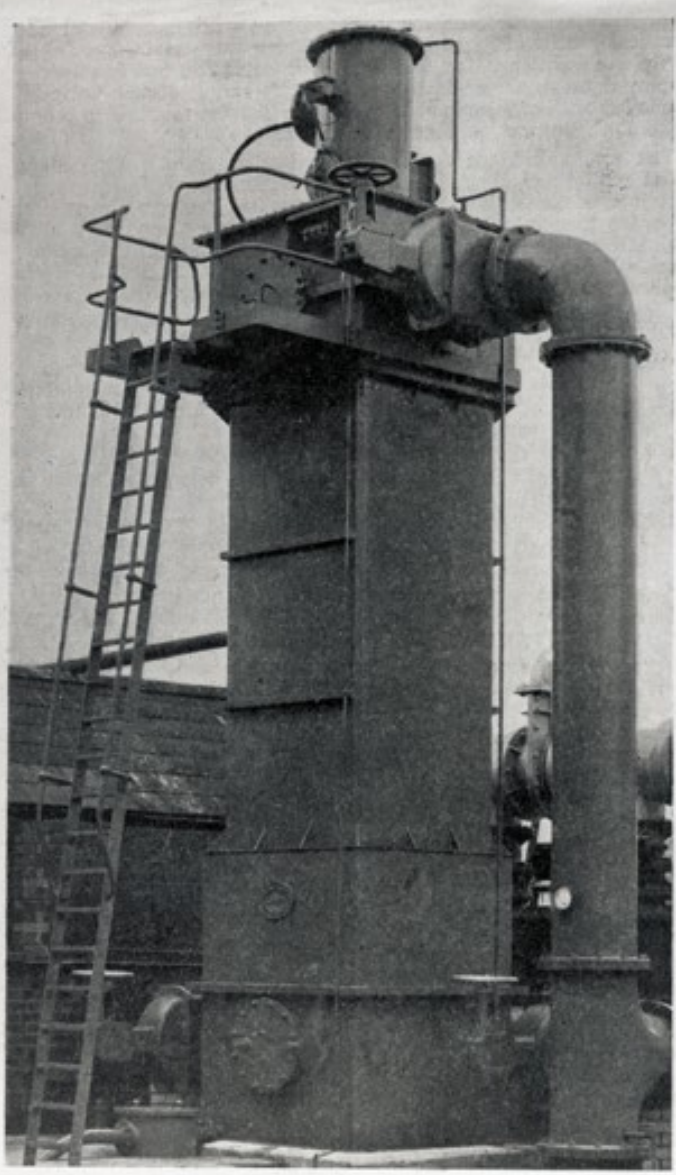


FIGURE 8.—*Simon-Carves Plate-type Electro-detarrer. (By courtesy of the makers.)*

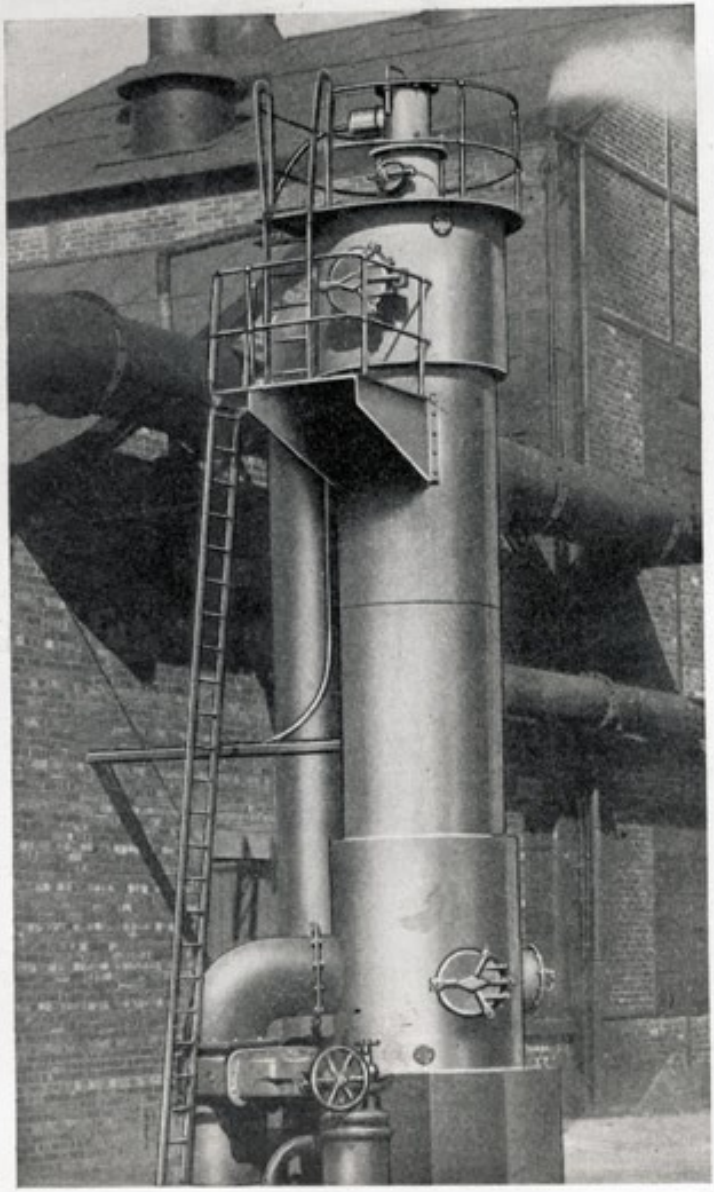


FIGURE 9.—*Holmes-Elex Plate-type Electro-detarrer. (By courtesy of the makers.)*

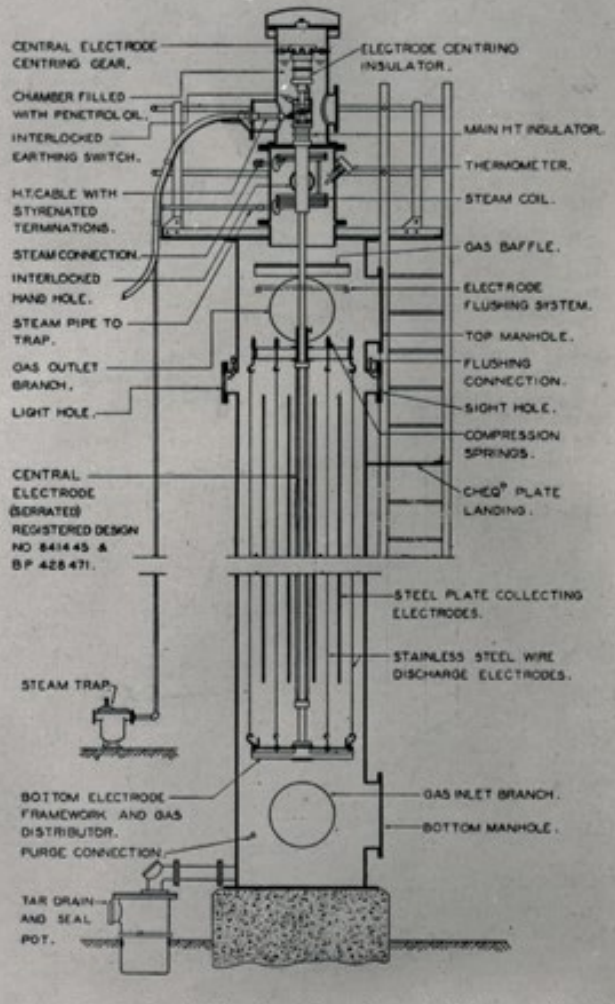


FIGURE 10.—*Sectional Elevation Drawing of Whessoe Woodall-Duckham Plate-type Electro-detarrer.*

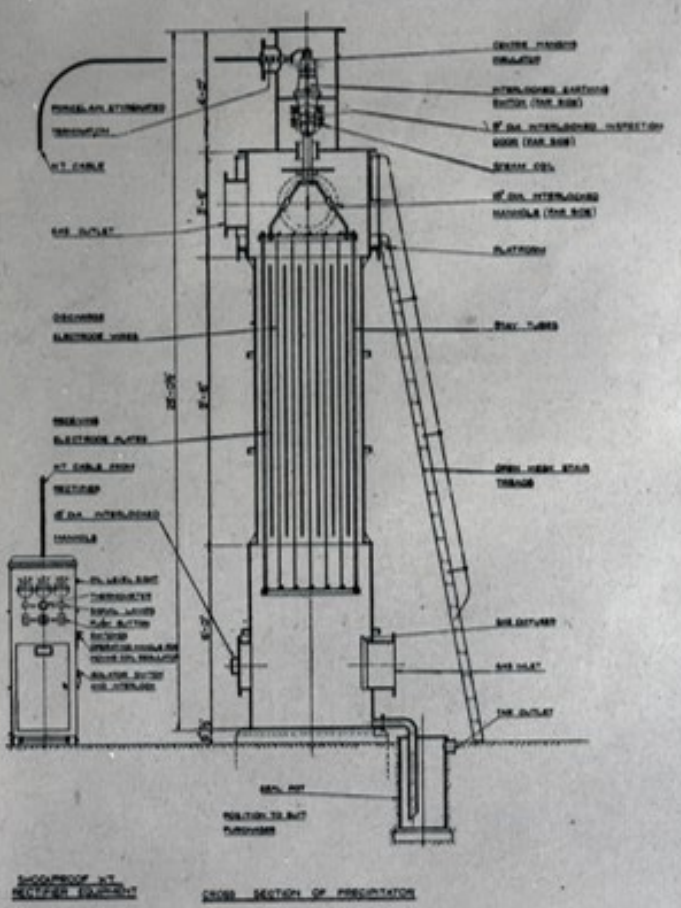


FIGURE 11.—*Sectional Elevation Drawing of Simon-Carves Plate-type Electro-detarrer.* (*By courtesy of the makers.*)

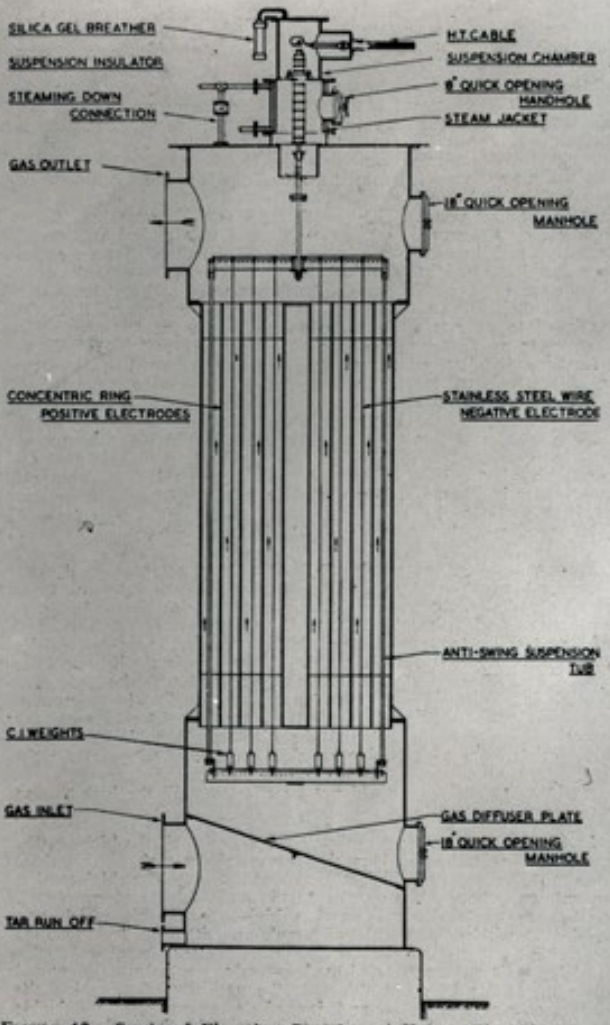


FIGURE 12.—*Sectional Elevation Drawing of Holmes-Elex Plate-type Electro-detarrer. (By courtesy of the makers.)*

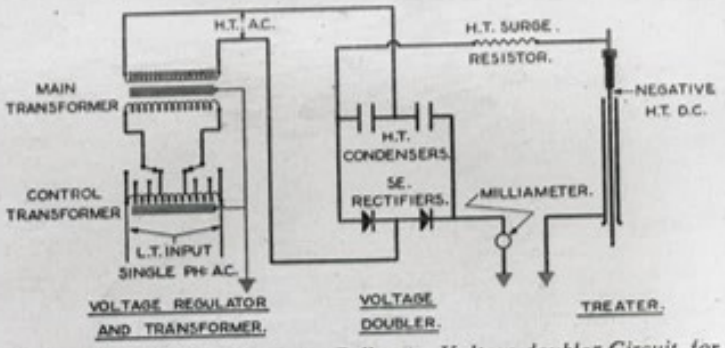


FIGURE 14.—*The Single-phase Full-wave Voltage-doubler Circuit for Electro-detarrers.*

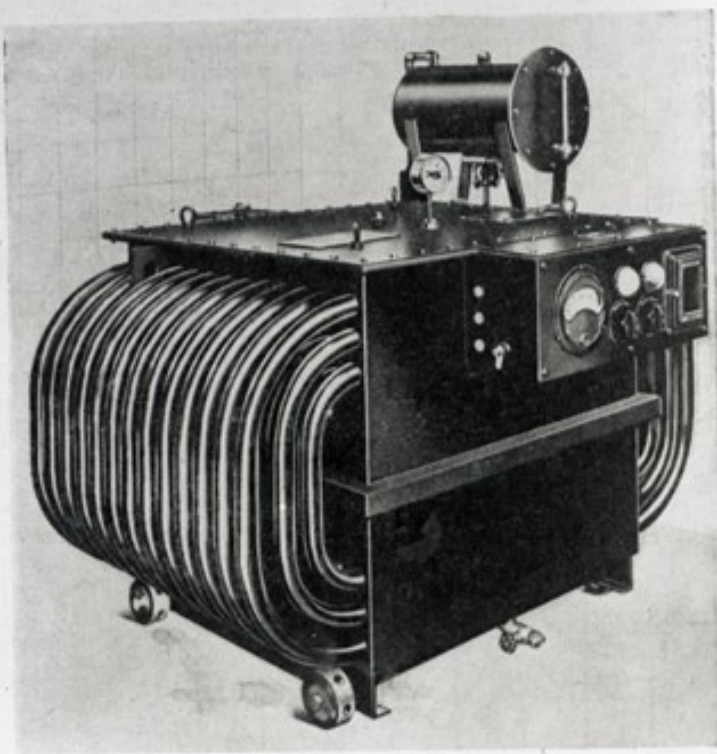


FIGURE 15.—*Whessoe Woodall-Duckham/Standard Telephones and Cables High-tension Electrical Equipment.*

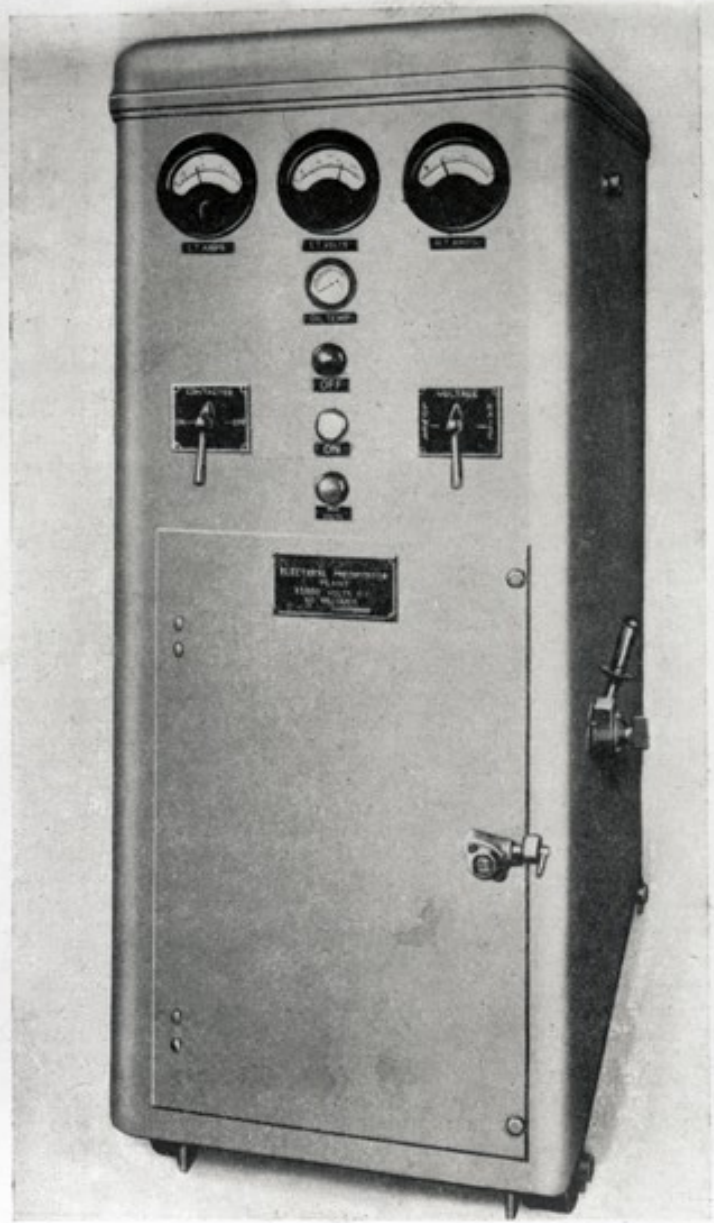


FIGURE 16.—Simon-Carves/Ferranti High-tension Electrical Equip-

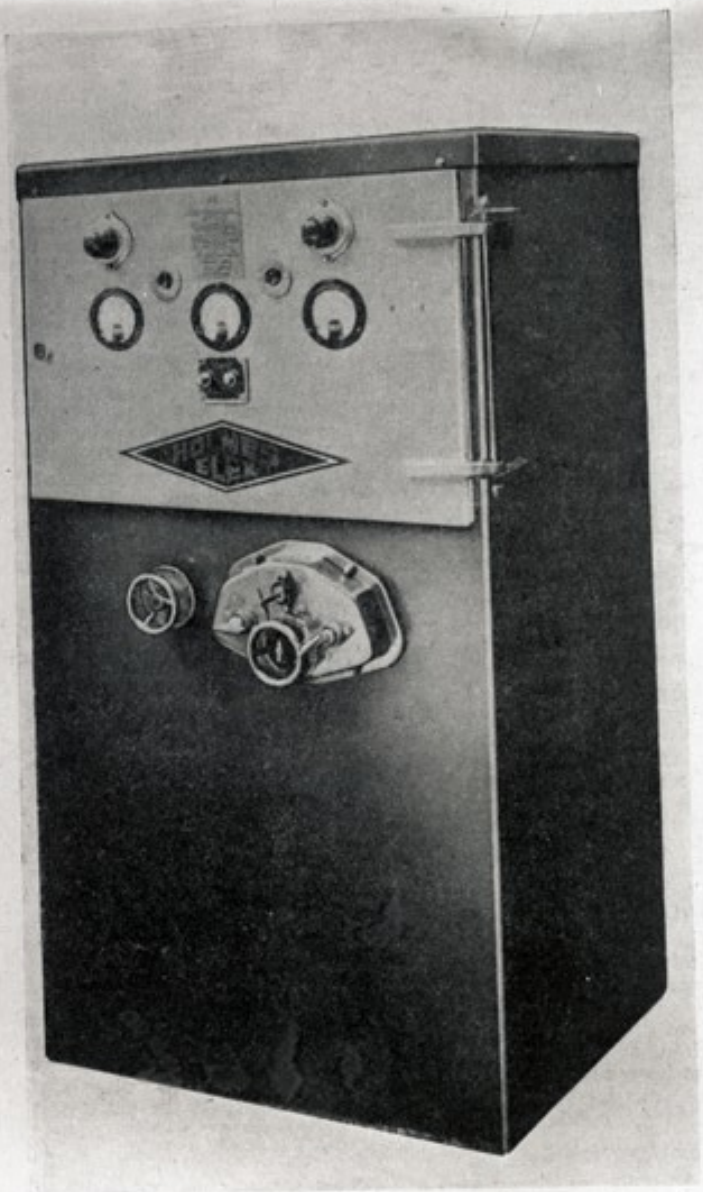


FIGURE 17.—*W. C. Holmes Electric Construction Company High-tension Electrical Equipment. (By courtesy of the*

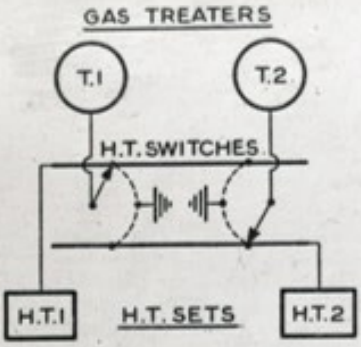


FIGURE 18.—*Typical High-tension Switchgear Diagram showing Distribution of High-tension D.C. to Gas Treaters.*

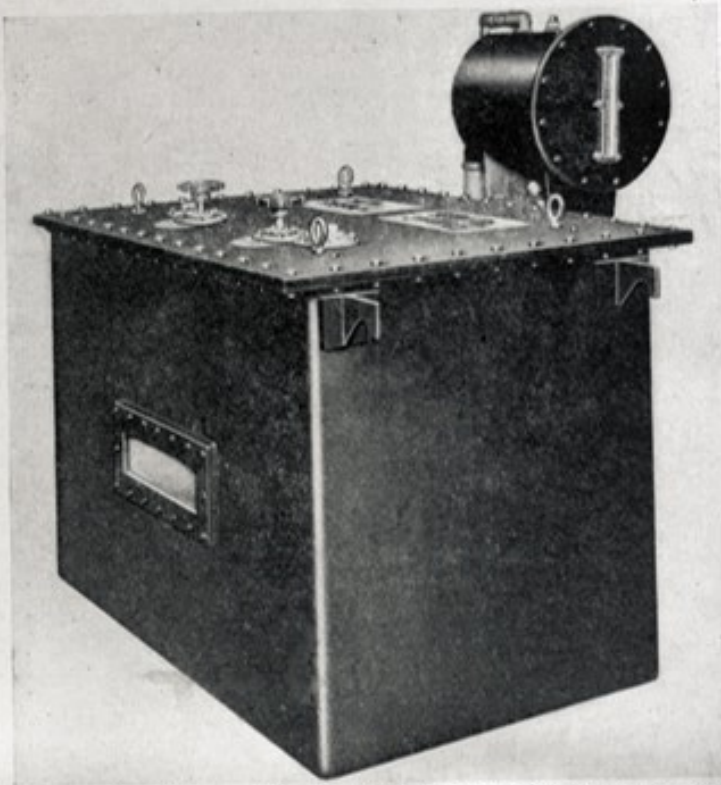
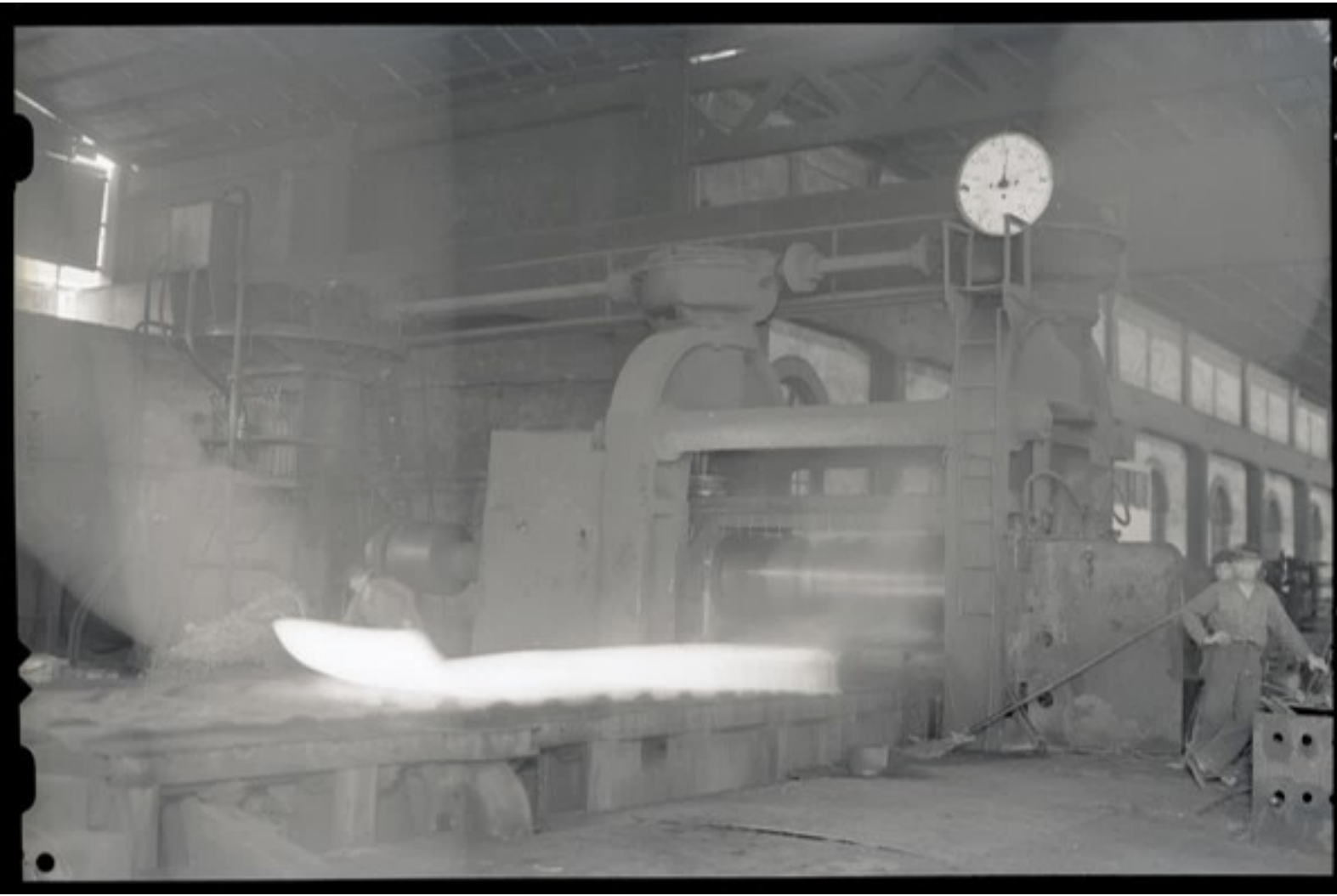


FIGURE 19.—*Whessoe Woodall-Duckham-type High-tension Switchgear.*



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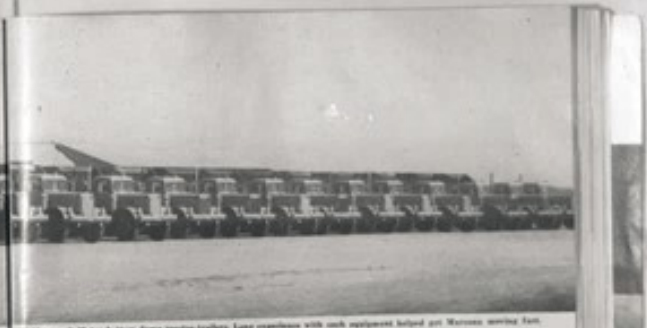
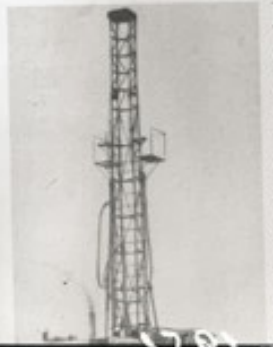
FOR FAST HAULAGE over the 11 km between mine and port, Utah Construction Co. assembled this fleet of 27



Euclid 35-ton bottom-dump tractor-trailers. Long experience with such equipment helped get Marcona moving fast.



Marcona—Four

FROM A VIRTUALLY uninhabited desert to a large-scale mining operation in less than four months—this is the record established in putting the Marcona iron mine in Peru into production.

In January 1953, the location of the orebodies in southern Peru was simply a desert waste. Fresh water had to be brought from 60 km away. The present harbor site at San Juan Bay was totally undeveloped.

Despite the handicap of having to bring all the early cargoes of heavy equipment ashore in lighters, and of having to build housing for construction personnel, the crews had the mine in shape by May 7, 1953 to send the first shipment of ore north. By September 1953 an output of 6,000 tons of ore daily had been attained.

This speed record was the accomplishment of Utah Construction Co., which owns the property jointly with Cyprus Mines Corp. Allen D. Christensen of San Francisco is president and general manager of Marcona Mining Co. Henry T. Mudd of Los Angeles is vice-president, Harlan A. Walker is resident general manager for Marcona in Peru.

Initial capital outlay for the project exceeded $6-million. The Export-Import Bank recently granted a loan of $2½-million for further mine development and [illegible] facilities.

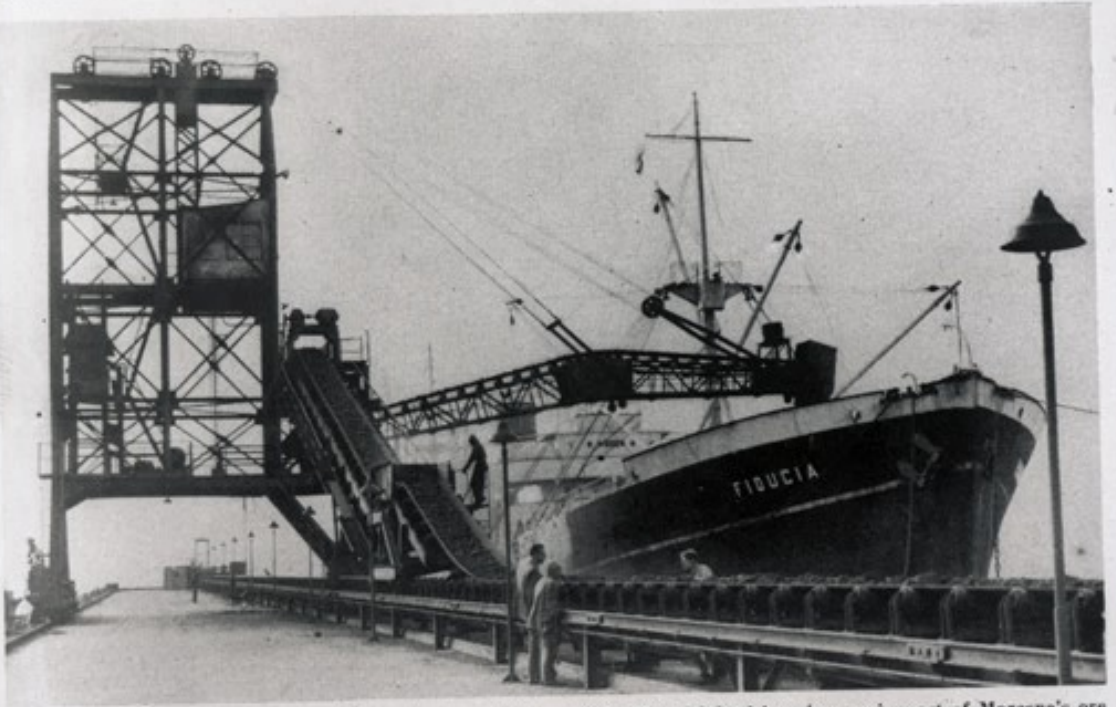
The Marcona [illegible] about 400 km south of

Months From Plan to Production

FROM PORT STOCKPILES, ore is drawn through a feeder operating in a reclaiming tunnel below stockpiles.

A 48-in. conveyor in tunnel leads to transfer tower, connecting with conveyor going to ship-loading gantry.

Marcona's Dock—Smooth loading for the trip



GANTRY LOADER travels up and down docks, and by means of travelling tripper, loads ore at most convenient point. This shipload is going, as is most of Marcona's ore at present, to U. S. Steel's plants near the Atlantic coast.

Increasing quantities of magnetite are met at greater depth.

surfacing roads from mine to dock, building a dock at San Juan Bay consisting of 180 ft of rock fill

In addition there had to be built power plants, warehouses, repair shops, administration buildings,

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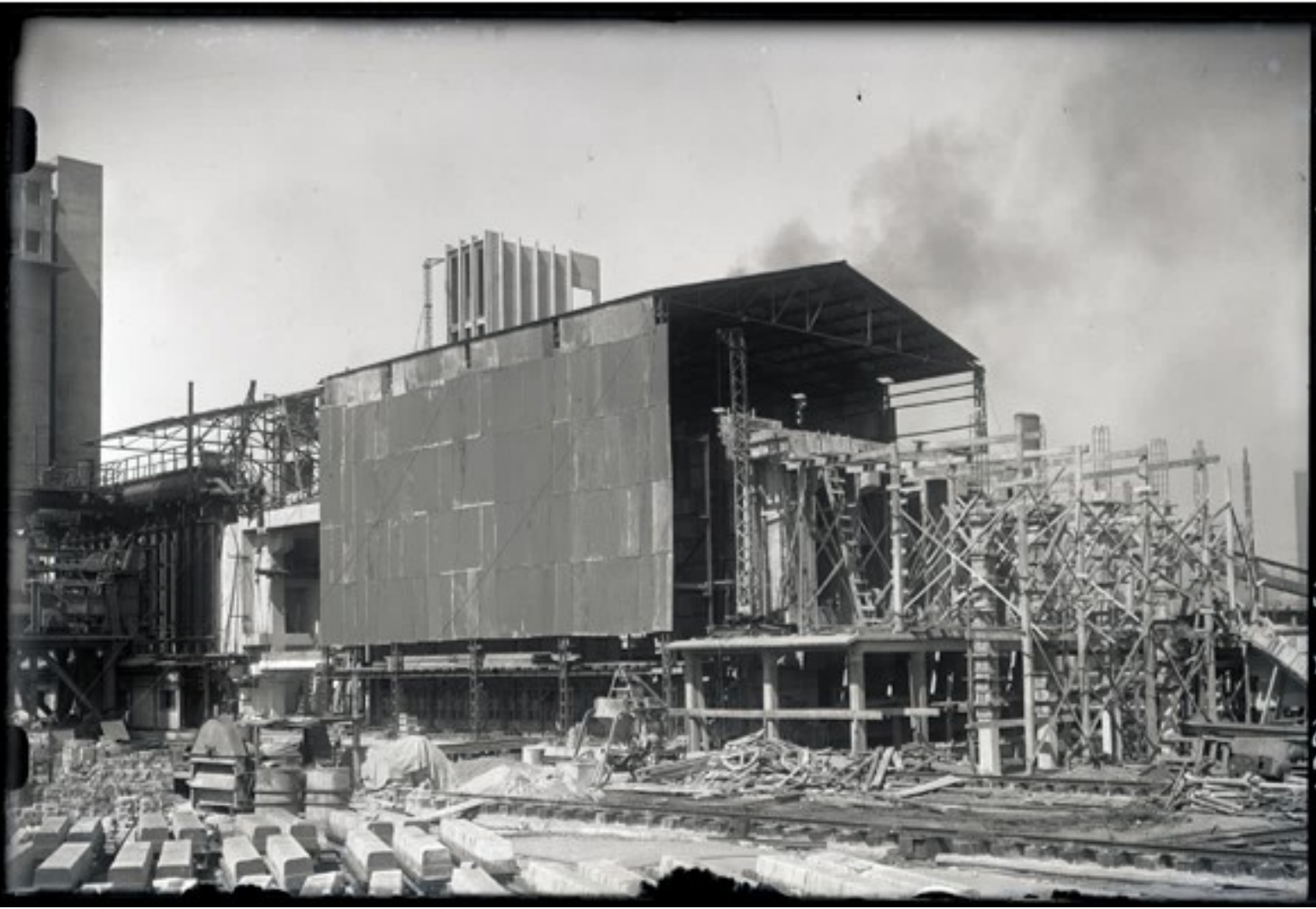

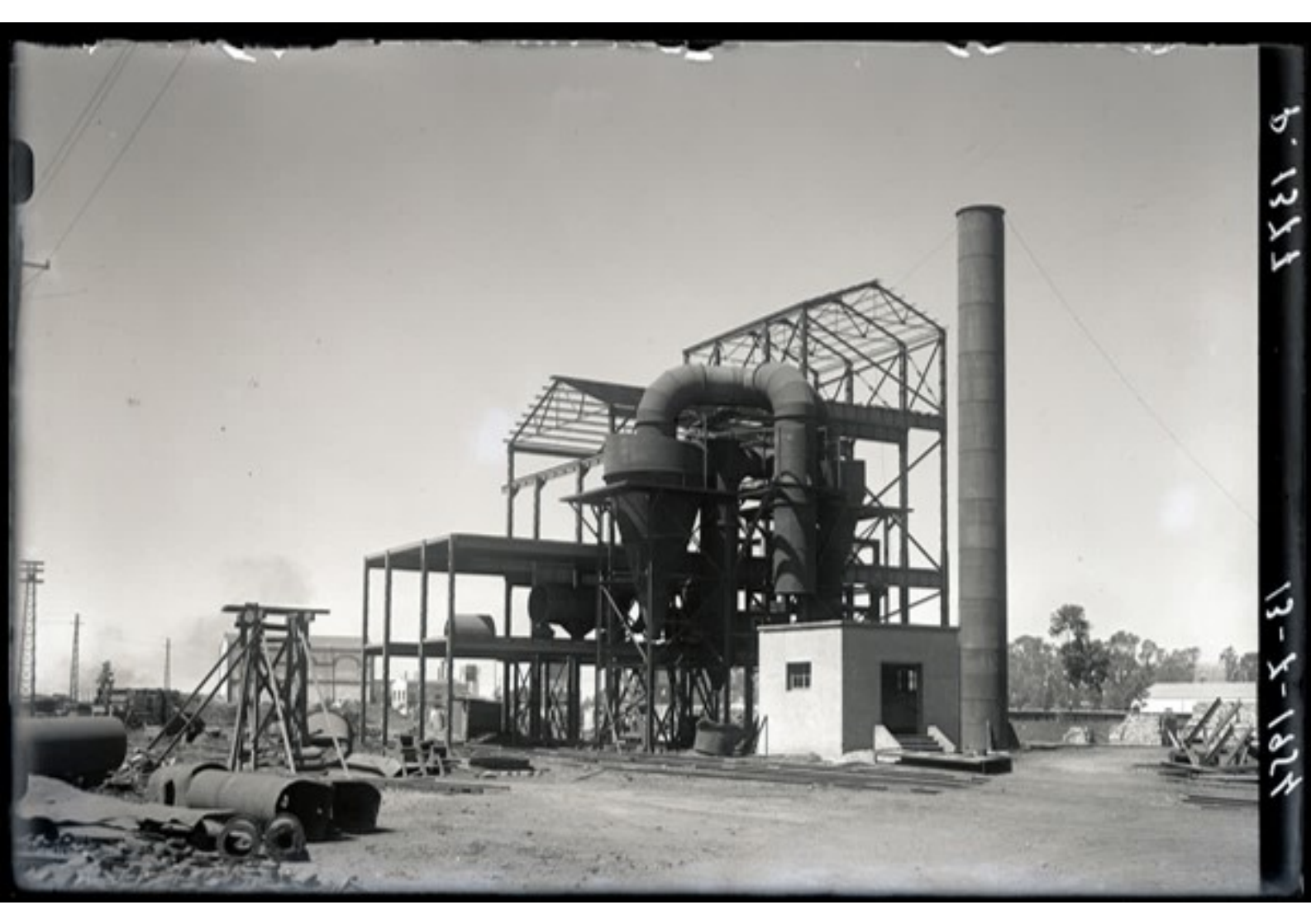


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13-8-1942

P-1387 22-9-1954


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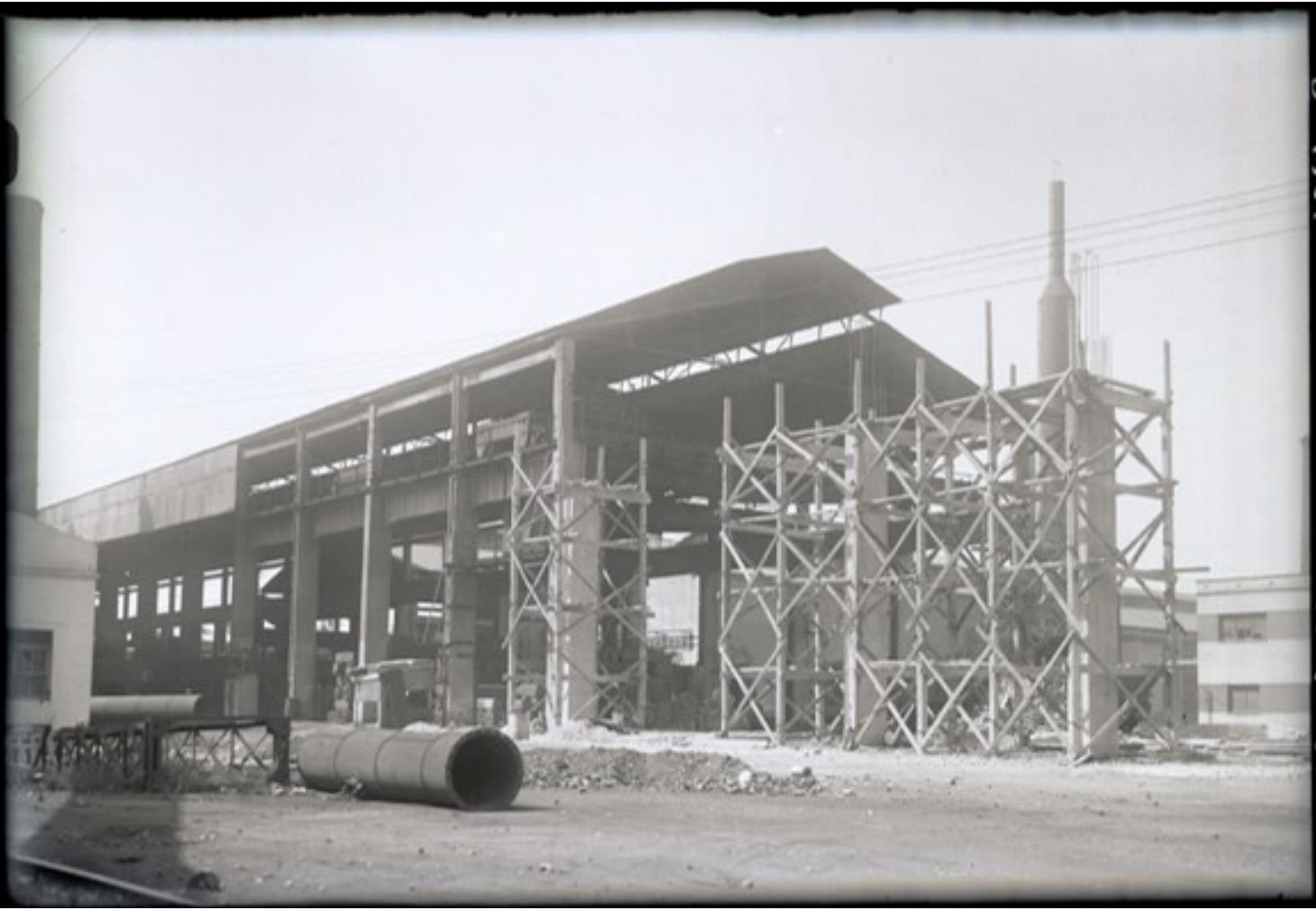

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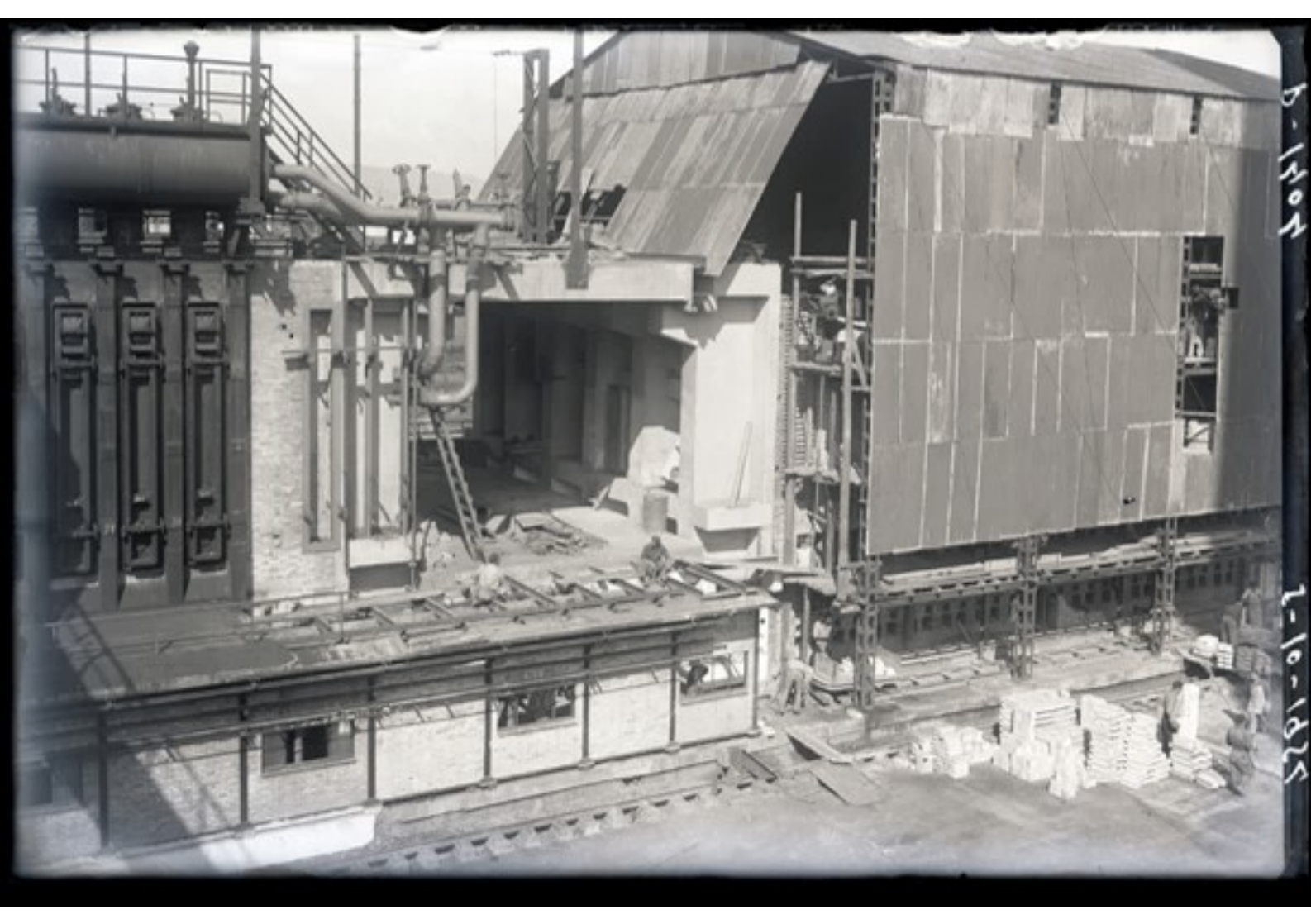
P-1403 7-10-1921



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2-10-1971


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13 - 10 - 1954

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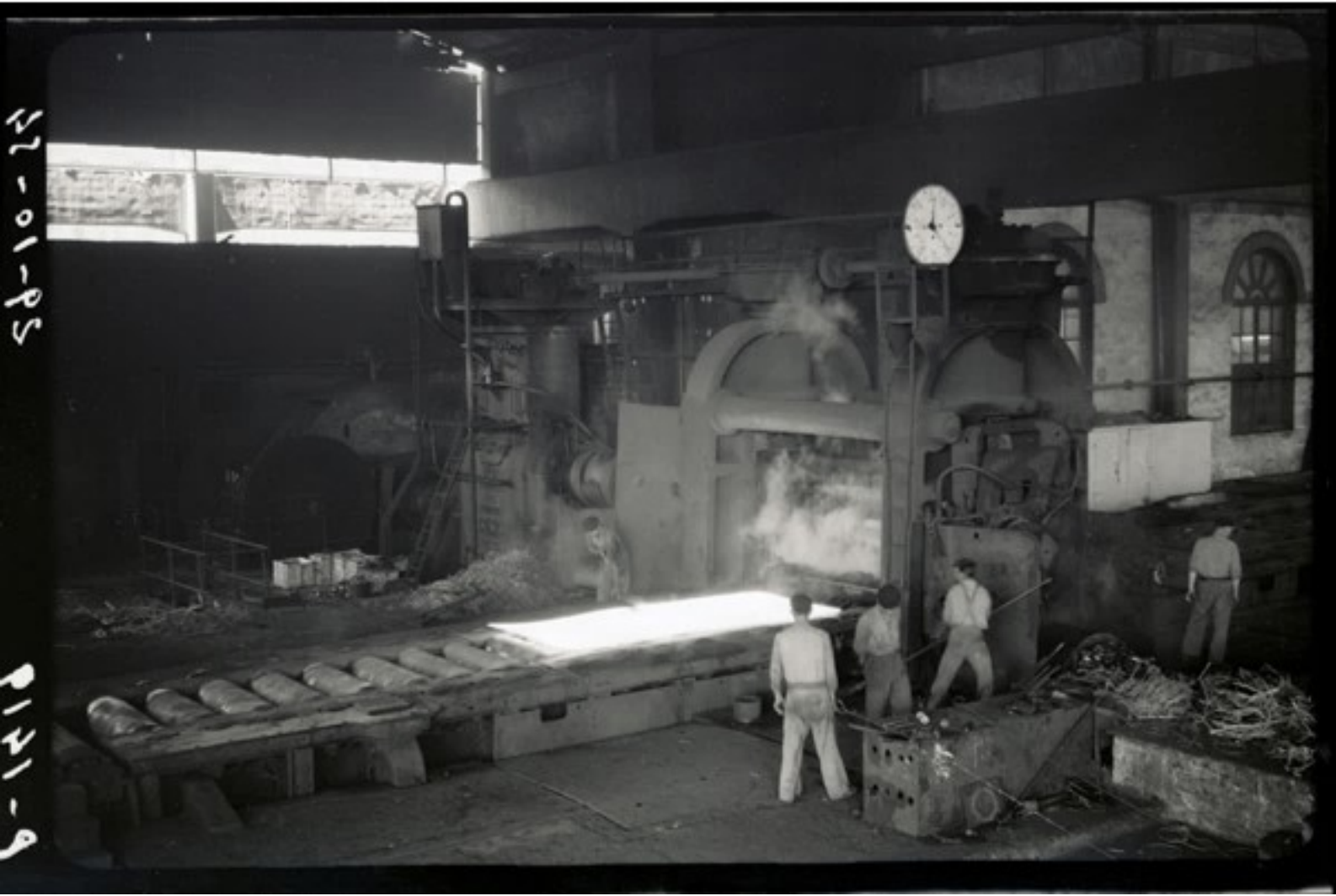
P - 1417

28-10-1954

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En el Puerto de Ingenio a diecinueve de diciembre de mil novecientos veintiuno y siendo hoy el Gobierno del Generalísimo Don Francisco Franco Bahamonde se procedió a poner la primera piedra de las nuevas Oficinas cuyo anteproyecto y presupuesto han sido aprobados por el Consejo de Administración de la Sociedad cuyas obras de Campo se va a reunir del a la siguiente.

Las nuevas Oficinas de Construcción comprenderán:

A- Taller de Maquinaria y Forja.
B- Taller de reparación de Locomotoras y vagones.
C- Taller de Construcción Metálicas Calderería y Soldadura Eléctrica
D- Taller de Hojas.

El resumen del presupuesto de estas obras aprobado por el Consejo es:

Taller de Maquinaria, Forja y reparación de locomotoras	6.765.184,80 pts
Taller de Construcciones metálicas, Calderería y Soldadura	3.845.144,80 "
Taller de Hojas.	1.845.344,80 "
TOTAL PESETAS	18.455.774,40

El Consejo de Administración que aprueba la construcción de estas nuevas Oficinas es siguiente:

Presidente: D. Victor de Chávarri y Orellana, Marqués de Triano
Vicepresidente 1º: D. Alfonso de Herrera y Castaños.
Vicepresidente 2º: D. Juan Manuel de Urbieta y Urrio.

Vocales:

D. Juan Aguirre y Gebilaqui. D. Luis de Urquijo, Marqués de Quintos
D. Víctor Chávarri Gallardo. D. Juan Cárlos Gortazar y Ercoreca.
D. Pedro Larrañaga y Basaldúa, Conde del Castillejo.
D. Gabriel de Chávarri y Ybarra. D. Pedro Goikoetxea Hidalgo.
D. Juan Manuel de Goenechea y Urquijo.
D. Ricardo de Goenechea y Urquijo. D. Cárlos Nuere y de la Breña
D. Alfonso Chávarri Gallardo. Conde del Real Gerrero
D. Ma. María de Villabaso y Chávarri.
D. Juan Cárlos Maldonado y Chávarri, Conde de Villagonzalo
D. José María de Zubiría y Urcaer
D. Juan Manuel de Zubiría y Ichaso, Conde de Zubiría.

Ocupaba el cargo de Alcalde Corrado D. Cárlos de Goyenaga y Cenarro que asistió al acto de la puesta de la primera piedra.

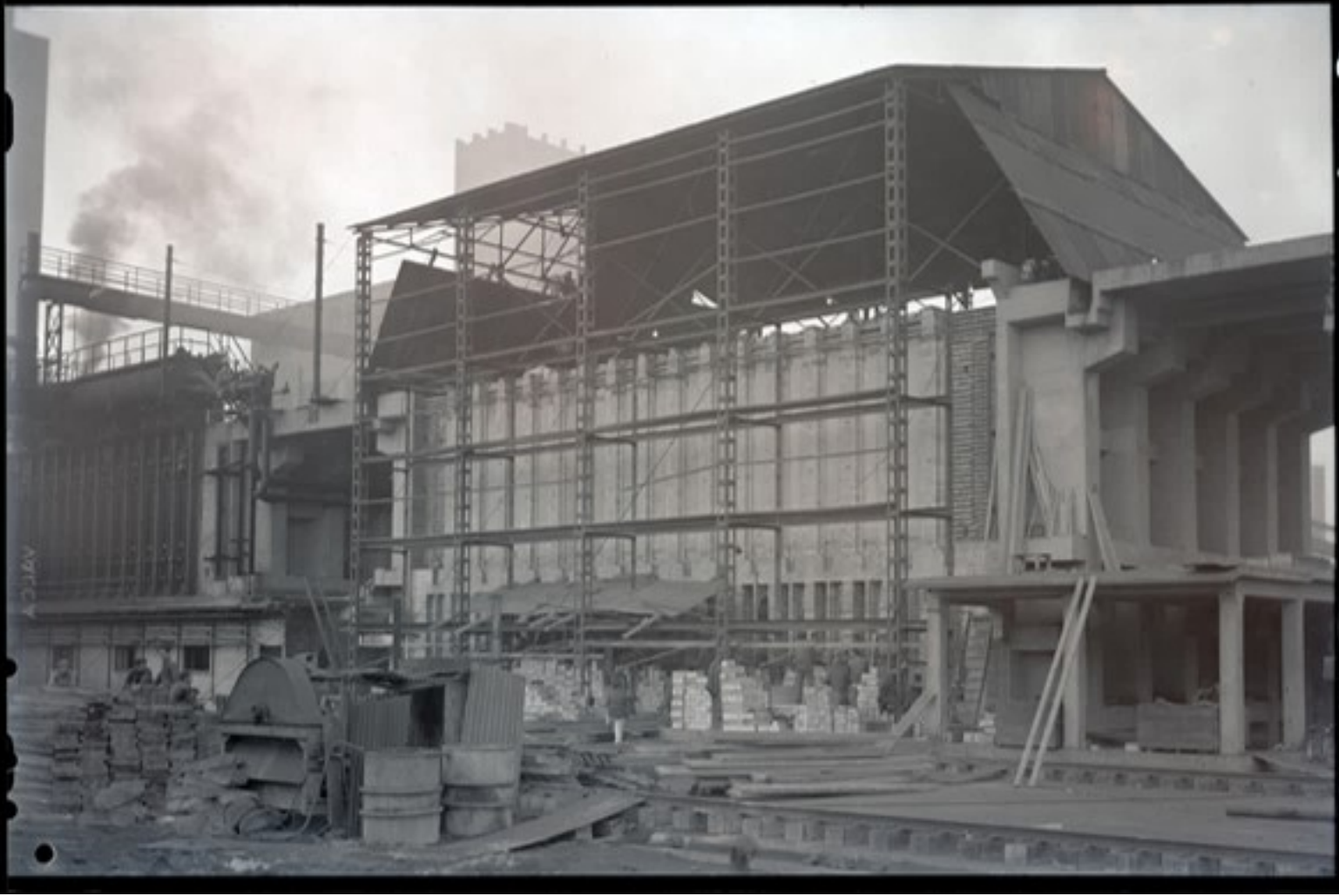
Era Director de la Fábrica D. Jerónimo Amor Salcedo.
Jefe Técnico de la Sociedad: D. Francisco Amores y
Subdirector de la Fábrica D. Luis Cánovas.
Subdirector de Talleres D. Pedro Javier de Garay.

La primera piedra fue bendecida por el Rvdo. Padre Angel Salcedo y puesta en su sitio por Doña Soledad de Goyenaga Urbieta, hija del Director General.

Los ingenieros que colaboraron prestan sus servicios en esta Fábrica son:

D. Vicente Ramón Roy. D. Jesús Vara Agüe. D. Manuel Pino Aguirre.
D. Francisco Aguar Bueno. D. Juan María Ugarte e Ibarra.
D. Vicente Mas Cervera. D. Fernando Aurell Bueno.
D. Pompeyo Sala Abril. D. Ignacio Cela Arriaga. D. José Rafael Anda.
D. Francisco Vargas Aurrecoechea. D. Luis Lasarte Gárate.
D. Francisco Rafael Ortiz de Zárate.

En el Puerto de Ingenio firman a diecinueve de diciembre de mil novecientos veintiuno y siendo las personas del acto.



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21-15-1824

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P-1445 4-1-1922

Panoramas de España vistos desde el aire

8-5-1422

P - 1458 8-2-1955

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22-5-1911

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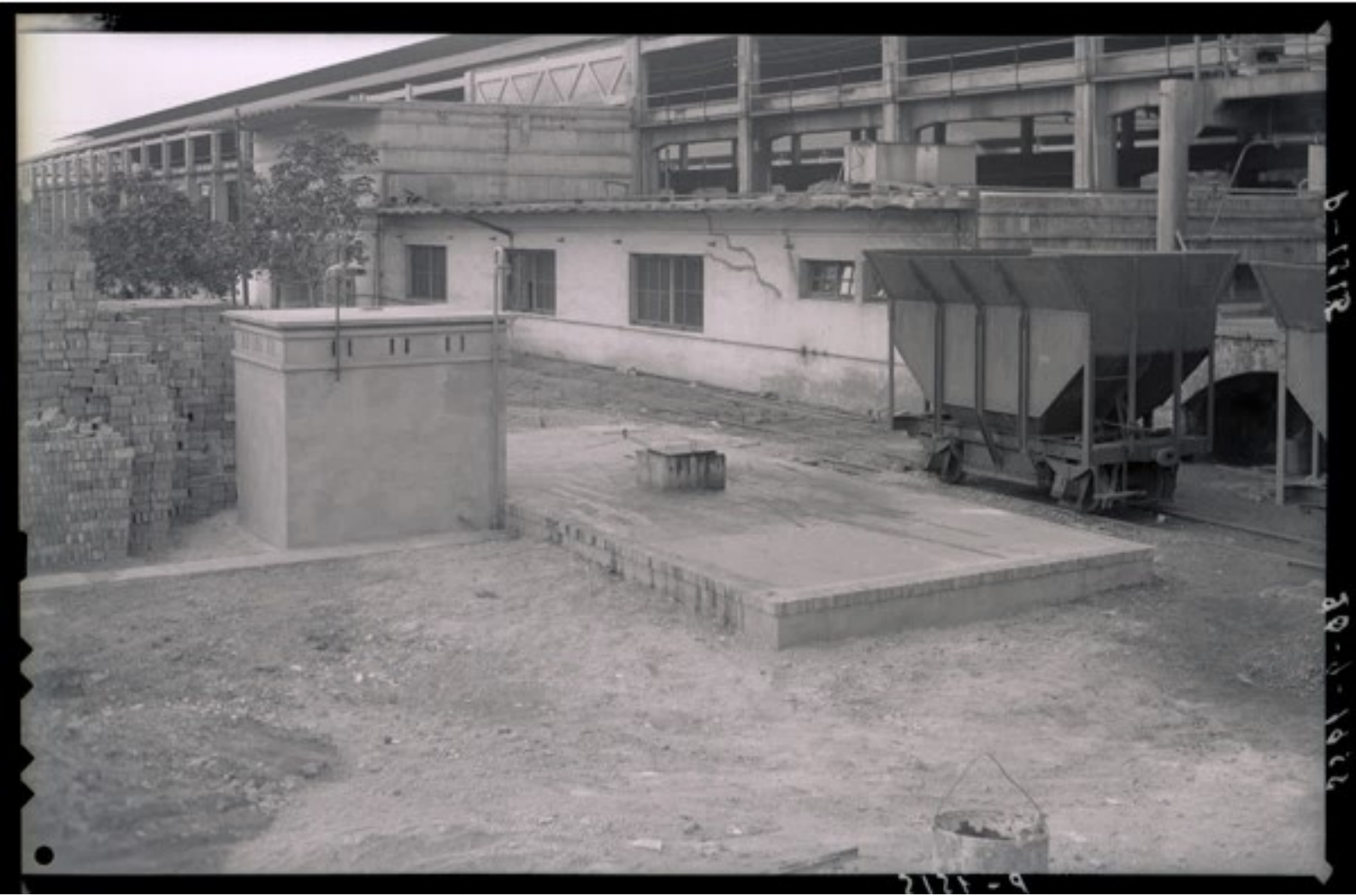


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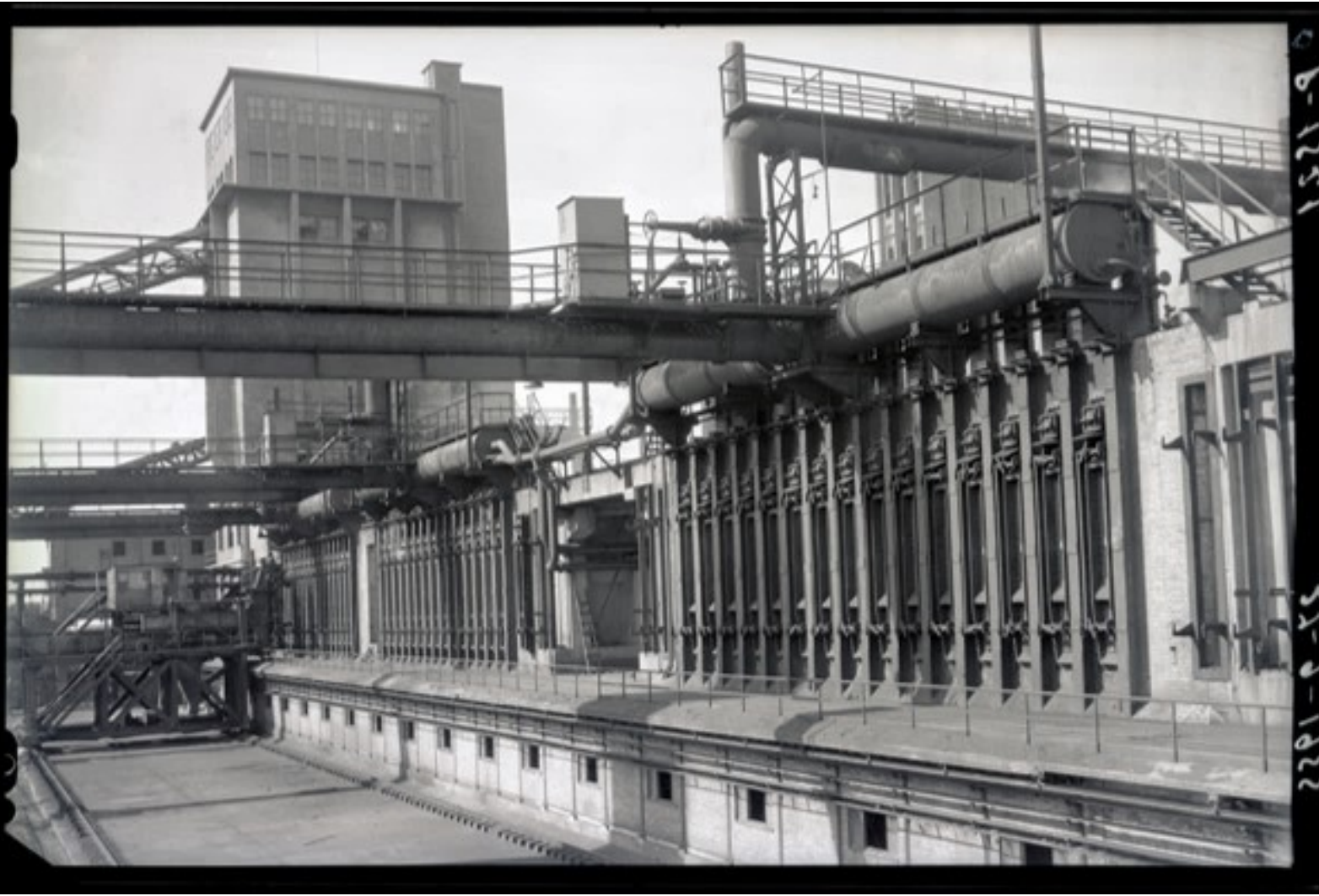

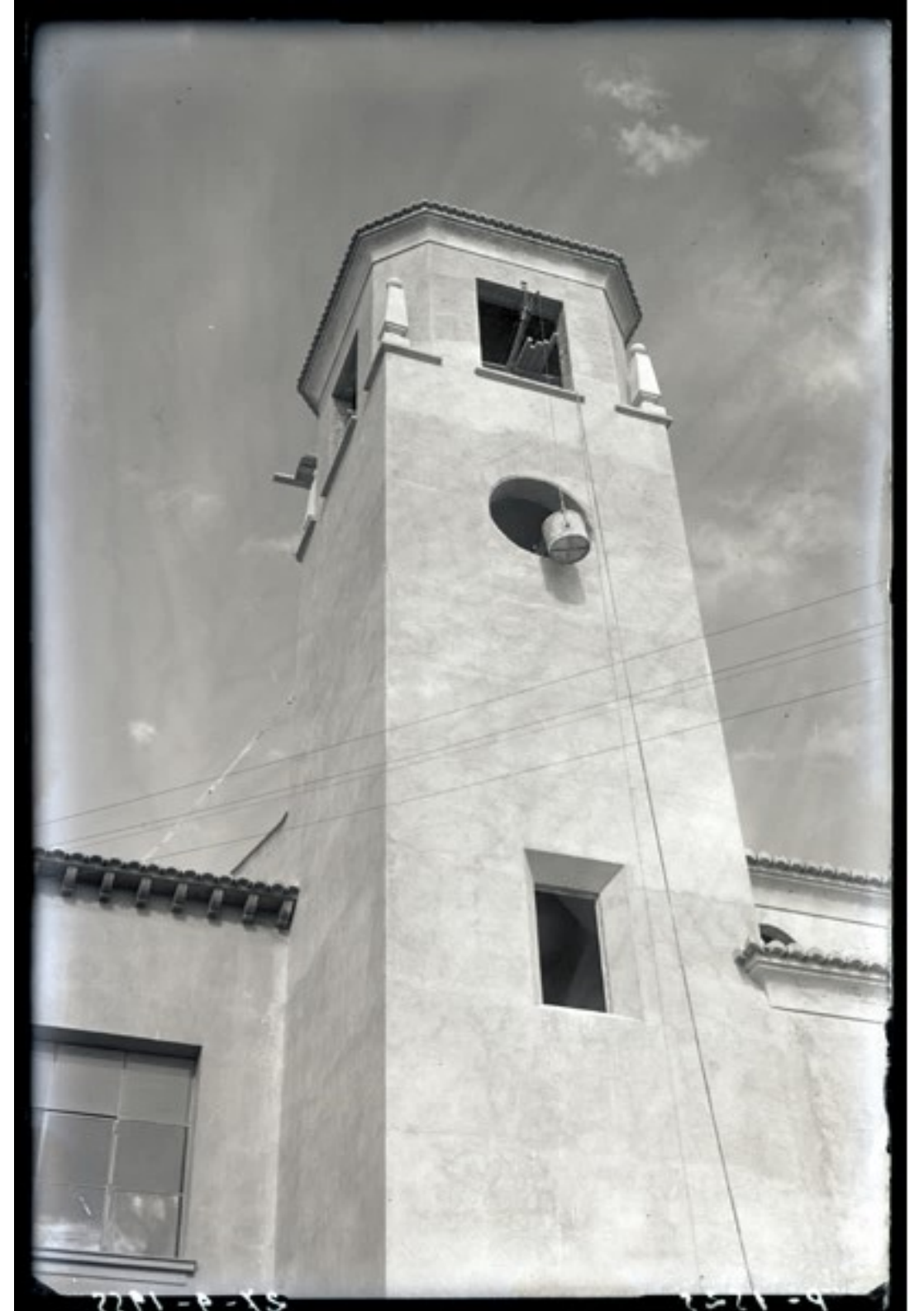

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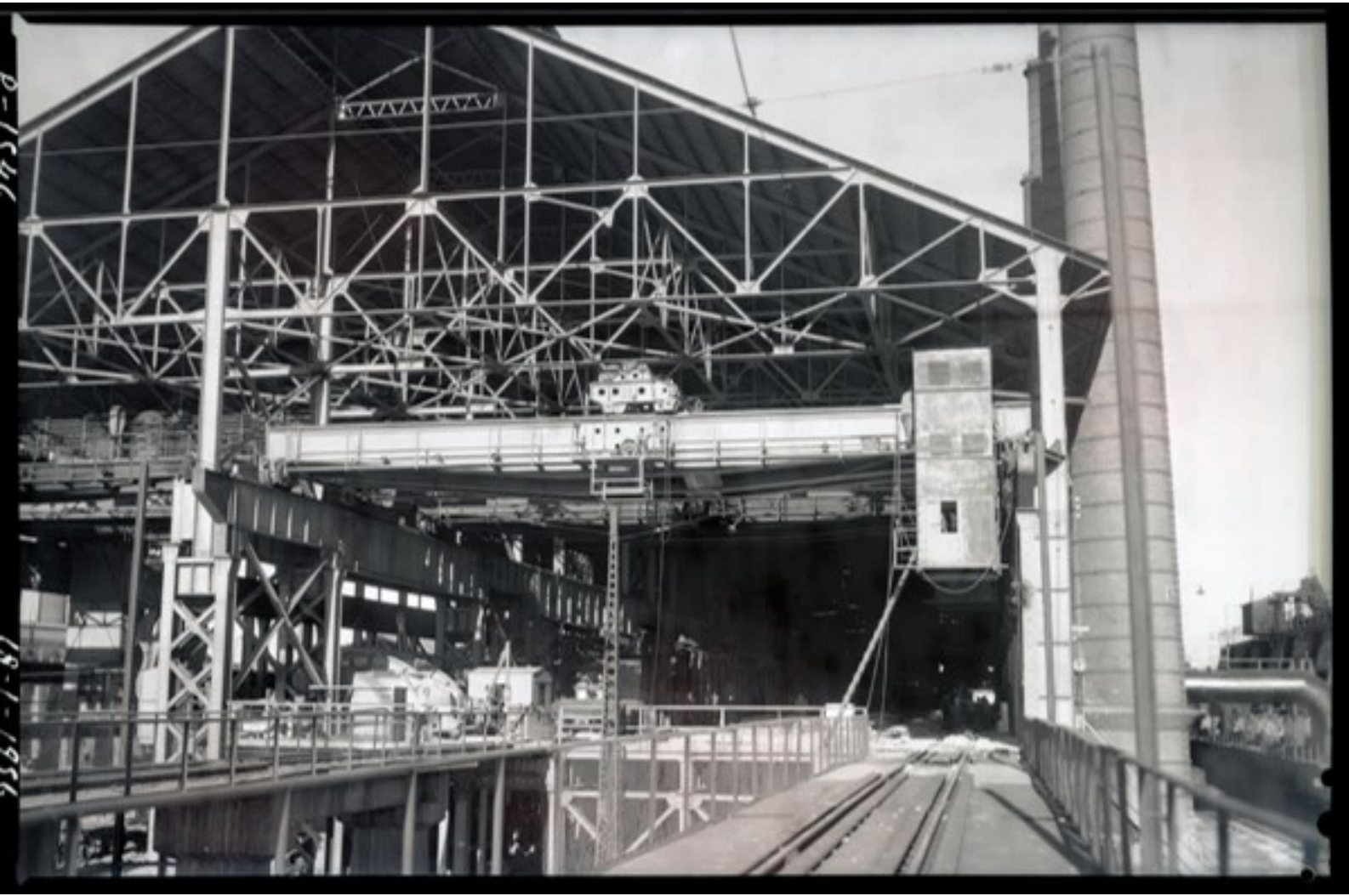

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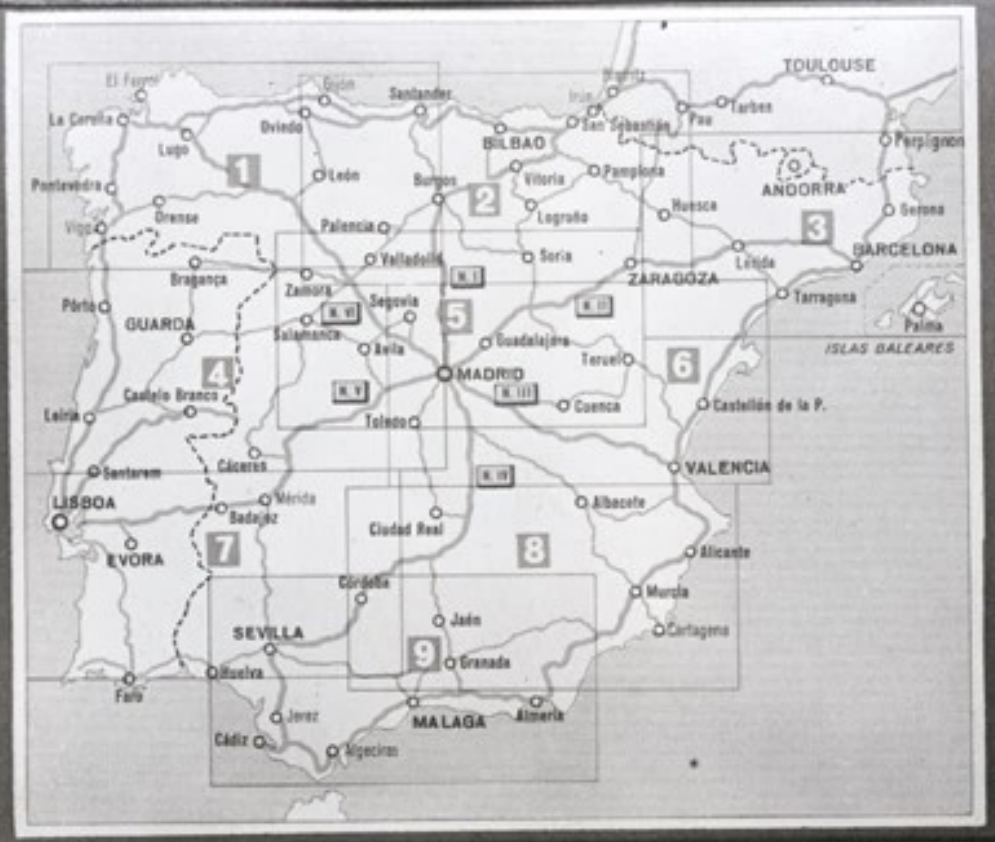

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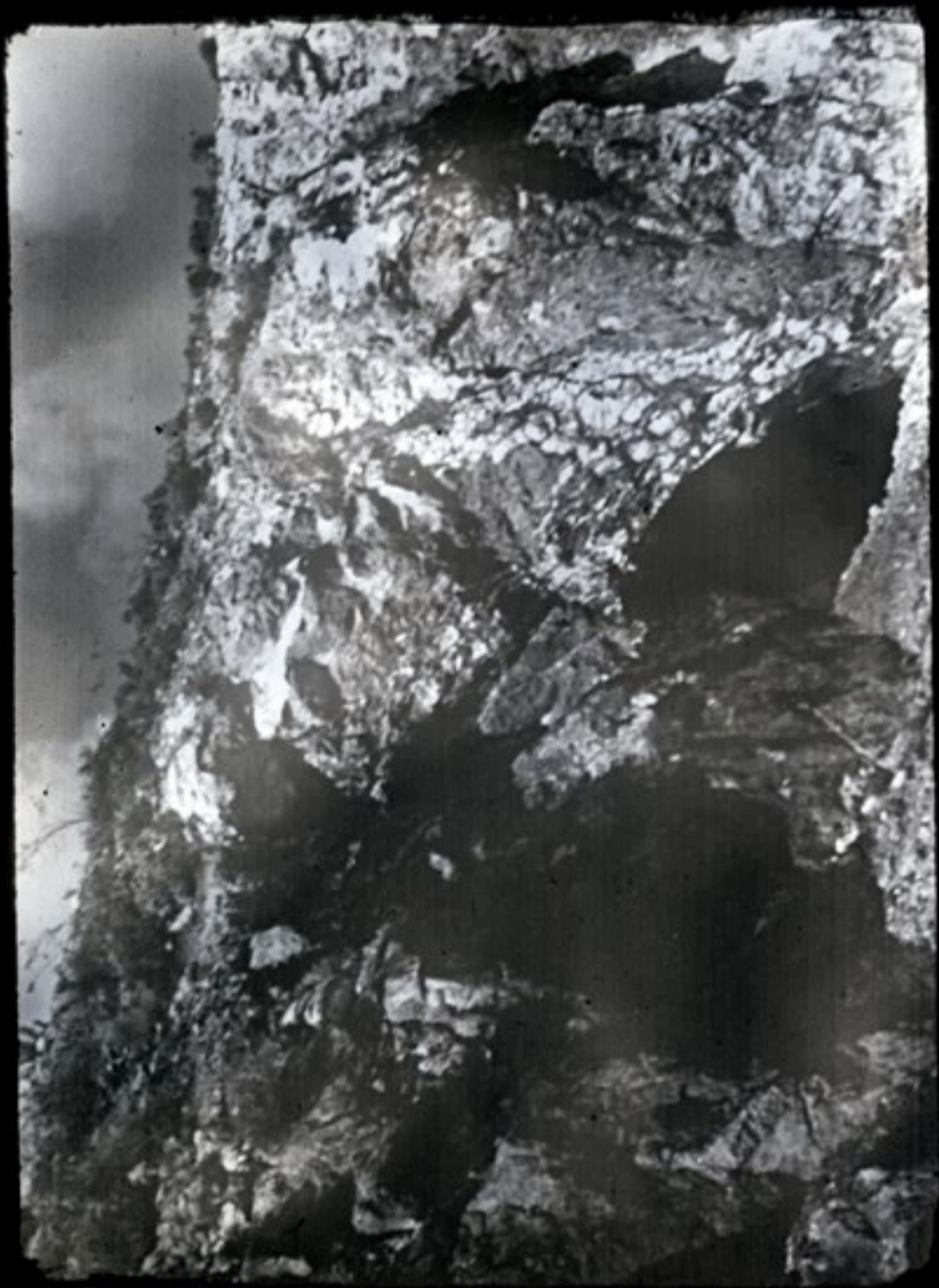

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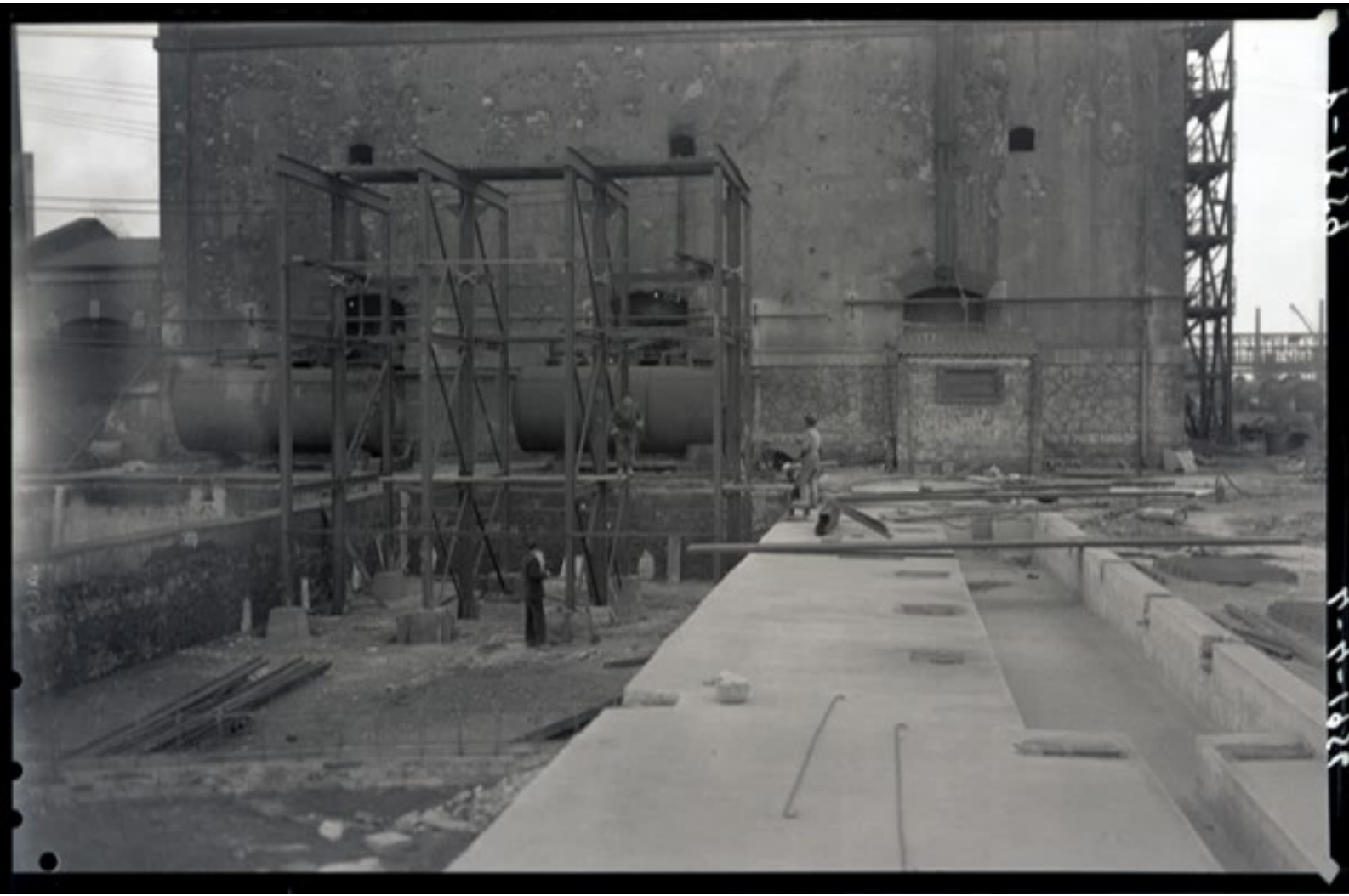
José Augusto Ferreira

P- 1988 - 23-3-1976



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Galvanometer ... de novo. Foto. Campbell

B-1222

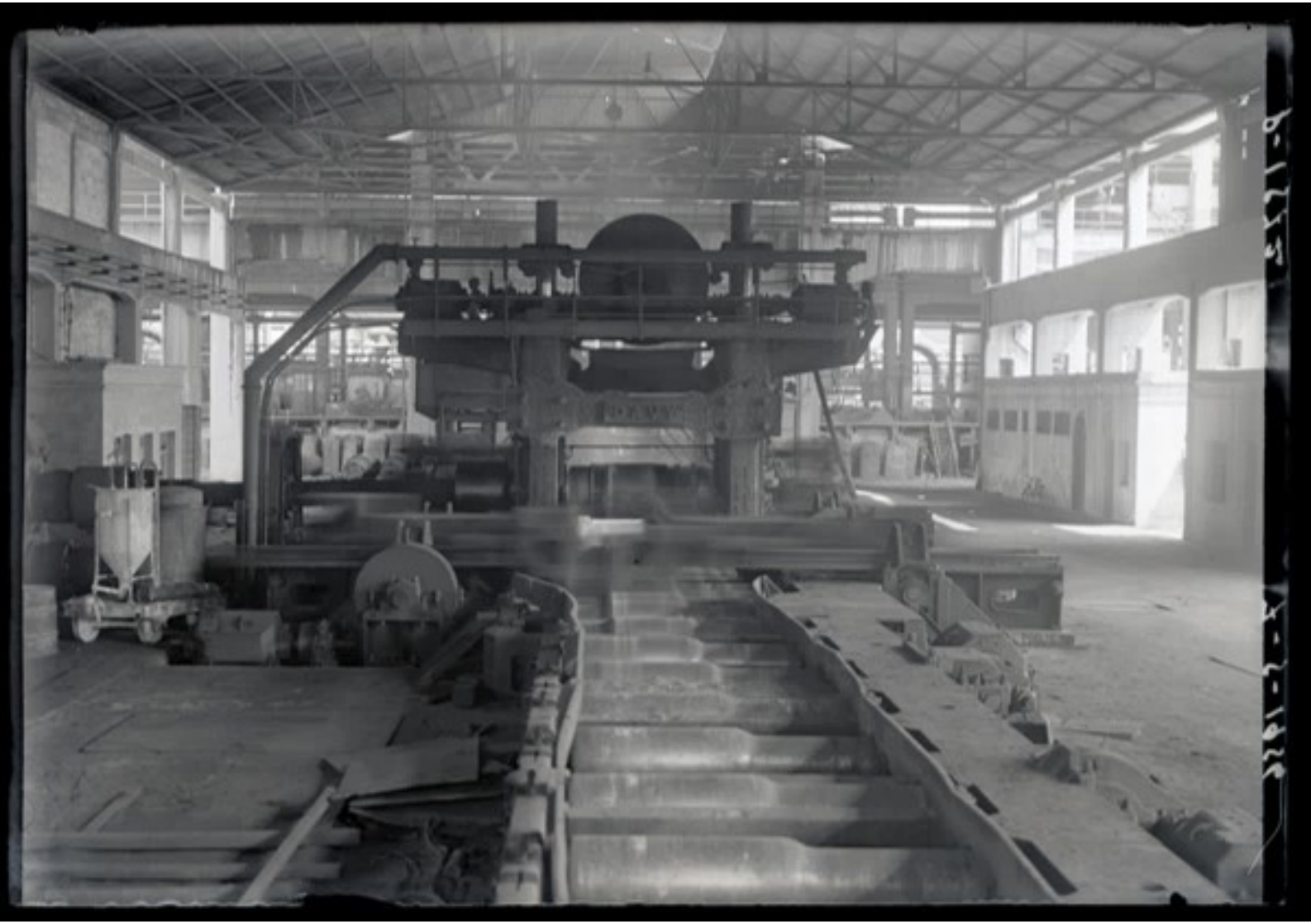
Vista general de una foto antigua

P-1214

Fabrikmaschine in einer Halle.

PLANTA DE ACEROS — COLADA DE UN MARTIN SIEMENS — CUCHARAS DE ACERO Y DE ESCORIA

P-1251 Polymerization of wood pulp complex

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