

- CA-12-31 Credit MUNI.  
REAR OF CAR BARN DURING RECONSTRUCTION: Photocopy of July 1908 photograph showing west rear of powerhouse and car barn. View from the north.
- CA-12-32 Credit MUNI.  
EAST FRONT AND SOUTH SIDE OF POWERHOUSE - 1921: Photocopy of August 1921 photograph showing south side and east front of powerhouse and car barn. The general lack of ornamentation on the building is in sharp contrast to its present appearance.
- CA-12-33 Credit MUNI.  
EAST FRONT AND SOUTH SIDE OF POWERHOUSE - 1965: Photocopy of July 1965 photograph showing south side and east front of powerhouse and car barn. Note addition of the decorative canopy at the corner of the building. At this date the structure displayed a coat of light green paint.
- CA-12-34 Credit JL.  
EAST FRONT AND SOUTH SIDE OF POWERHOUSE AND CAR BARN.
- CA-12-35 Credit JL.  
EAST FRONT OF POWERHOUSE AND CAR BARN: East front of powerhouse and car barn. "Annex" is right end of building.
- CA-12-36 Credit JL.  
VIEW EAST ON WASHINGTON STREET WITH POWERHOUSE ON LEFT.
- CA-12-37 Credit JL.  
WEST REAR OF POWERHOUSE AND CAR BARN: West rear of powerhouse and car barn, showing the turntable and tracks used to move cars in and out of the building's repair and storage area.

INTERIORS OF THE POWERHOUSE AND WINDING MACHINERY:

- CA-12-38 Credit CS.  
ELEPHANT BOILERS - 1905: Photocopy of April 1905 photograph showing elephant boilers along the west wall of the Washington and Mason Street powerhouse and car barn. View looking west on first floor of building.
- CA-12-39 Credit MUNI.  
REBUILT ENGINES AND WINDING MACHINERY: Photocopy of December 1906 photograph of the steam engines and winding machinery at the Washington and Mason Street powerhouse. View towards west. United Railroads of San Francisco rebuilt the damaged engines and winders shown in CA-12-60 and CA-12-61. There are no cables strung over the winders in this photograph, indicating that the firm had yet to resume service. Note the rough shed erected over the engines to protect them from weather while work continued on the reconstruction of the powerhouse.

- Credit MUNI.  
CA-12-40 1911 ELECTRIC MOTOR INSTALLATION: Photocopy of July 1911 photograph showing the installed 600hp General Electric motor at the Washington and Mason Streets powerhouse. View towards the south wall of the first floor. Note the engineer's shack and switchboard behind the motor and its pinion gear.
- Credit MUNI.  
CA-12-41 MAIN SHEAVE VAULT - 1955: Photocopy of June 1955 photograph of the main sheave vault below the southeast corner of the Washington and Mason powerhouse. View towards the southeast. Two of the deflecting sheaves in the vault are visible at the upper left and right rear of the photograph.
- Credit MUNI.  
CA-12-42 VIEW TO SOUTH AT FIRST FLOOR MACHINE SHOP: Photocopy of December 1964 photograph showing the machine shop on the first floor of the powerhouse. View towards the south along the east wall of the building. Note the abundance of belt-driven machine tools, several of which are still in use.
- Credit JL.  
CA-12-43 ELEVATOR HEAD-HOUSE INTERIOR: Interior view towards southeast of elevator head-house at the Washington and Mason Street powerhouse.
- Credit JL.  
CA-12-44 SECOND FLOOR "ANNEX" - INTERIOR VIEW TO SOUTHWEST: Interior view towards southwest on second floor of the powerhouse "annex." Note the steel column and beam construction and the old shunt car formerly used to move cable cars around the yard.
- Credit JL.  
CA-12-45 INTERIOR VIEW TO SOUTHWEST ON SECOND FLOOR: Interior view towards southwest on second floor of main portion of the powerhouse and car barn. This space is used for repair and storage of cable cars. Note wooden trussed roof.
- Credit JL.  
CA-12-46 INTERIOR VIEW TO SOUTH ON SECOND FLOOR: Interior view looking south along the east wall on the second floor of the powerhouse and car barn. Note the cable car truck in the foreground.
- Credit JL.  
CA-12-47 INTERIOR VIEW TO NORTHWEST ON SECOND FLOOR: Interior view towards northwest on the second floor of the powerhouse and car barn. View looking across the storage and repair tracks.
- Credit JL.  
CA-12-48 INTERIOR OF MAIN OFFICE: Interior view towards southeast of Main Office on second floor of the Washington and Mason powerhouse and car barn.

- Credit JL.  
CA-12-49 INTERIOR OF GILLEY ROOM: Interior view towards southeast of the Gilley Room on the second floor of the powerhouse and car barn.
- Credit JL.  
CA-12-50 INTERIOR VIEW TO SOUTH AT FIRST FLOOR MACHINE SHOP: Interior view towards south of the machine shop located on the first floor of the powerhouse and car barn. Compare this view with CA-12-74, taken seventeen years earlier.
- Credit JL.  
CA-12-51 FIRST FLOOR INTERIOR VIEW TO SOUTHEAST: Winding machinery to right, and belt-driven machine tools to left. Museum mezzanine in upper portion of photo.
- Credit JL.  
CA-12-52 VIEW NORTHEAST ACROSS WINDING MACHINERY: Overall view towards northwest of the winding machinery on the first floor of the Washington and Mason Streets powerhouse and car barn. Photograph taken from museum mezzanine looking along the tension runs.
- Credit JL.  
CA-12-53 REAR OF MOTOR AND REDUCTION GEAR NO. 2: View towards northwest showing rear of Motor and Reduction Gear No. 2, installed in 1926.
- Credit JL.  
CA-12-54 VIEW TO SOUTH OF WINDING MACHINERY: General view towards the south showing the winding machinery on the first floor of the Washington and Mason Streets powerhouse and car barn.
- Credit JL.  
CA-12-55 VIEW TO NORTHEAST OF MOTOR AND REDUCTION GEAR NO. 1: View towards the northeast of Motor and Reduction Gear No. 1, installed in 1957.
- Credit JTL.  
CA-12-56 DETAIL OF SOUTH SIDE OF WINDING SHEAVES: Detail of south side of the winding sheaves. These sheaves drive the California Street cable.
- Credit JL.  
CA-12-57 VIEW DOWN TENSION RUNS FROM CATWALK OVER WINDERS: View towards northwest looking down the tension runs for the cables. Photograph taken from atop the catwalk over the winding machinery. The California Street cable is on the left and the Hyde Street cable on the right.
- Credit JL.  
CA-12-58 DETAIL OF PINION AND BULL GEARS: Detail view towards northeast of the pinion and bull gears of the winding machinery.
- Credit JL.  
CA-12-59 SIDE VIEW OF TENSION CARRIAGE: Side view towards the south of the California Street cable's tension carriage.

- Credit JL.
- CA-12-60 VIEW TO SOUTHEAST TOWARDS WINDING MACHINERY: View towards the southeast looking down the tension runs towards the winding machinery.
- Credit JL.
- CA-12-61 VIEW TO SOUTHEAST IN MAIN SHEAVE VAULT: View towards the southeast in the main sheave vault under the southeast corner of the Washington and Mason Street powerhouse. Photograph shows the Powell-Mason and Powell-Hyde outbound deflecting sheaves.
- Credit JL.
- CA-12-62 VIEW TO NORTHWEST IN MAIN SHEAVE VAULT: View towards the northwest in the main sheave vault showing the Powell-Hyde and Powell-Mason inbound deflecting sheaves.
- Credit JL.
- CA-12-63 VIEW TO SOUTHWEST IN MAIN SHEAVE VAULT: View towards the southwest in the main sheave vault showing the double sheave used to deflect the California Street cable in and out of the powerhouse.

OTHER POWERHOUSES:

- Credit MUNI.
- CA-12-64 ELECTRIC MOTOR - HAYES STREET POWERHOUSE - 1905: Photocopy of April 1905 photograph showing an early electric motor installation used to drive the winding machinery at the Hayes Street powerhouse of the United Railroads of San Francisco. A portion of the steam engine originally used to power the machinery is visible behind the winding sheave in the left background of the photograph.
- Credit MUNI.
- CA-12-65 CALIFORNIA STREET CABLE RAILWAY - WINDING MACHINERY: Photocopy of February 1955 photograph showing the winding machinery of the California Street Cable Railroad. The two suspended sheaves on the right of the photograph bore down on the cable as it left the winders, supplying tension to the cable and eliminating the need for a long tension run.

Credit CRC: Photocopies of engravings from The Cable Railway Company's System of Traction Railways for Cities and Towns (1881).

Credit CS: Photocopies of historic photographs in the possession of Charles Smallwood, San Francisco. No restrictions on use.

Credit JL: Photographs taken by Jet Lowe, NAER staff photographer, in September 1981. No restrictions on use.

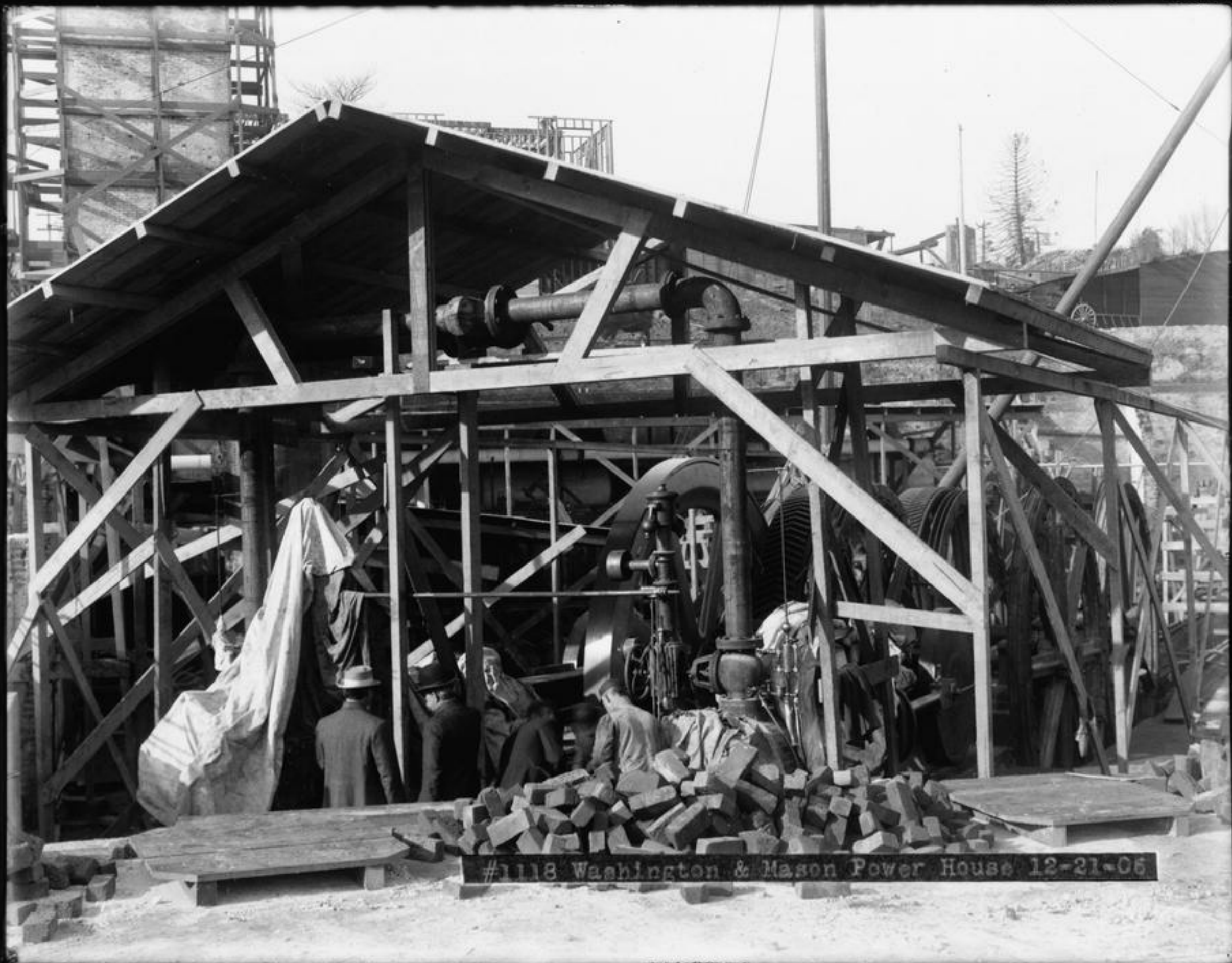
Credit MUNI: Photocopies of historic photographs from the collection of the San Francisco Public Utilities Commission. No restrictions on use.

Credit SFPL: Photocopies of historic photographs from the collection of the San Francisco Public Library. No restrictions on use.



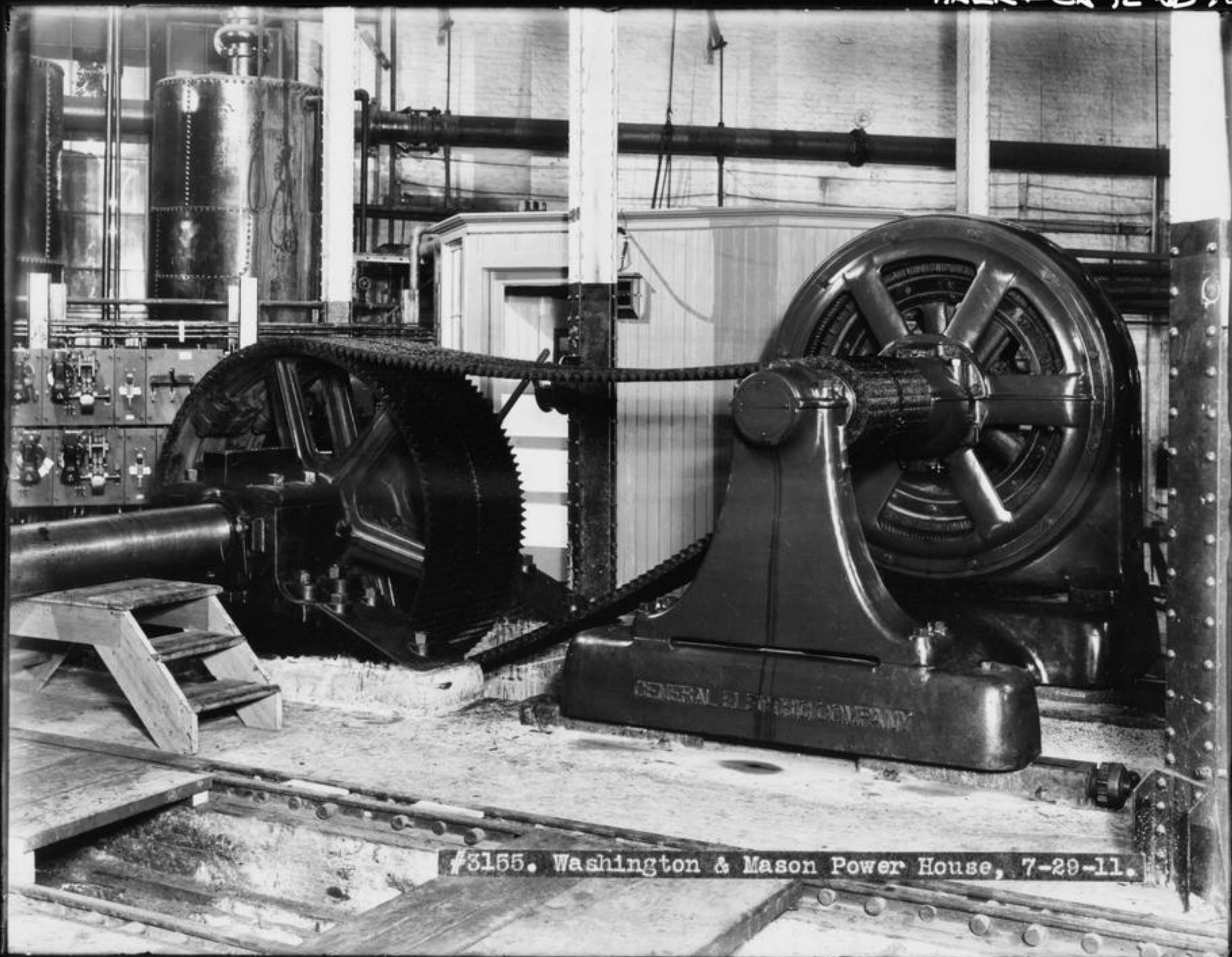
WASH. & MASON POWER HOUSE.

HAER #CA-12-6038



#1118 Washington & Mason Power House 12-21-06





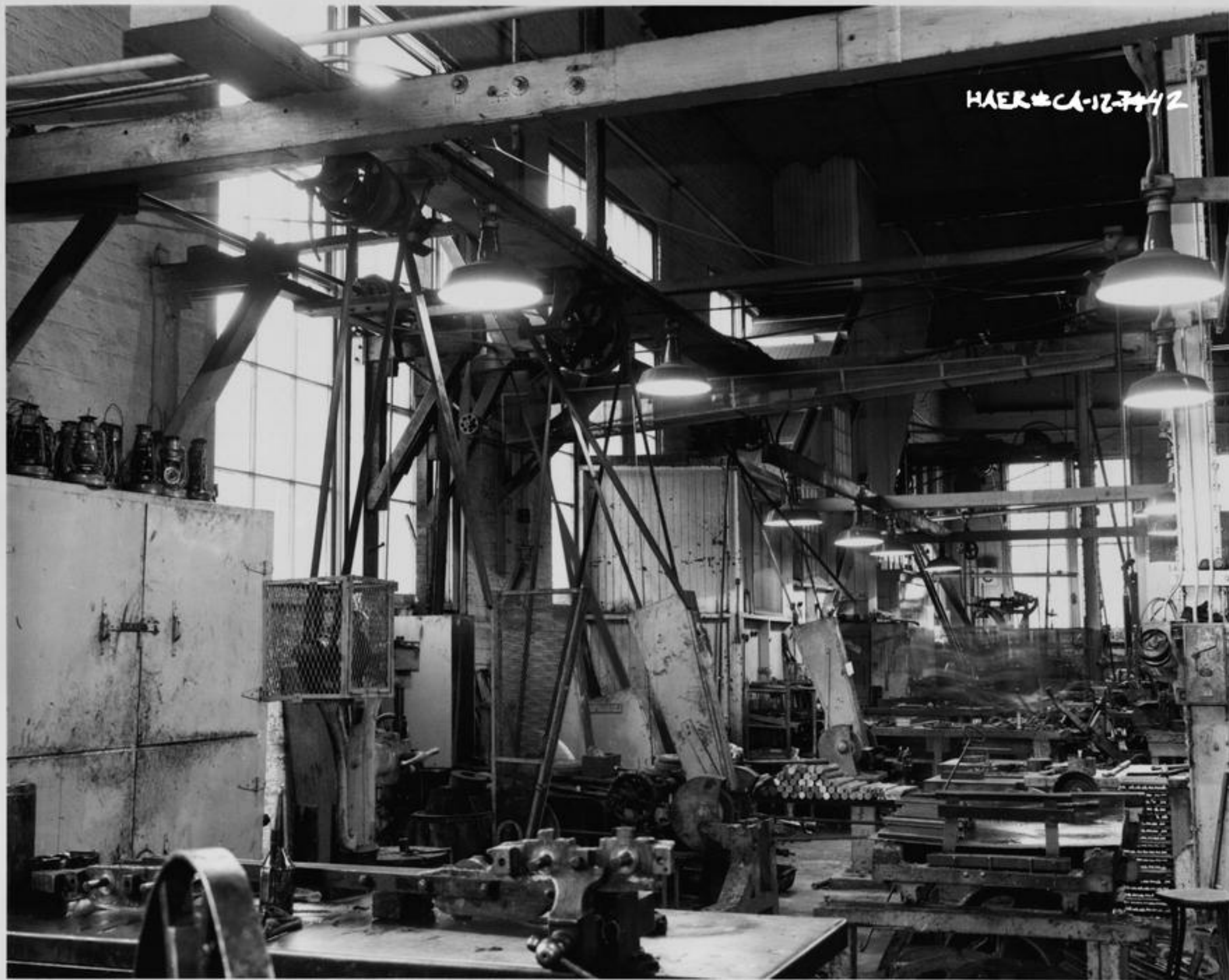
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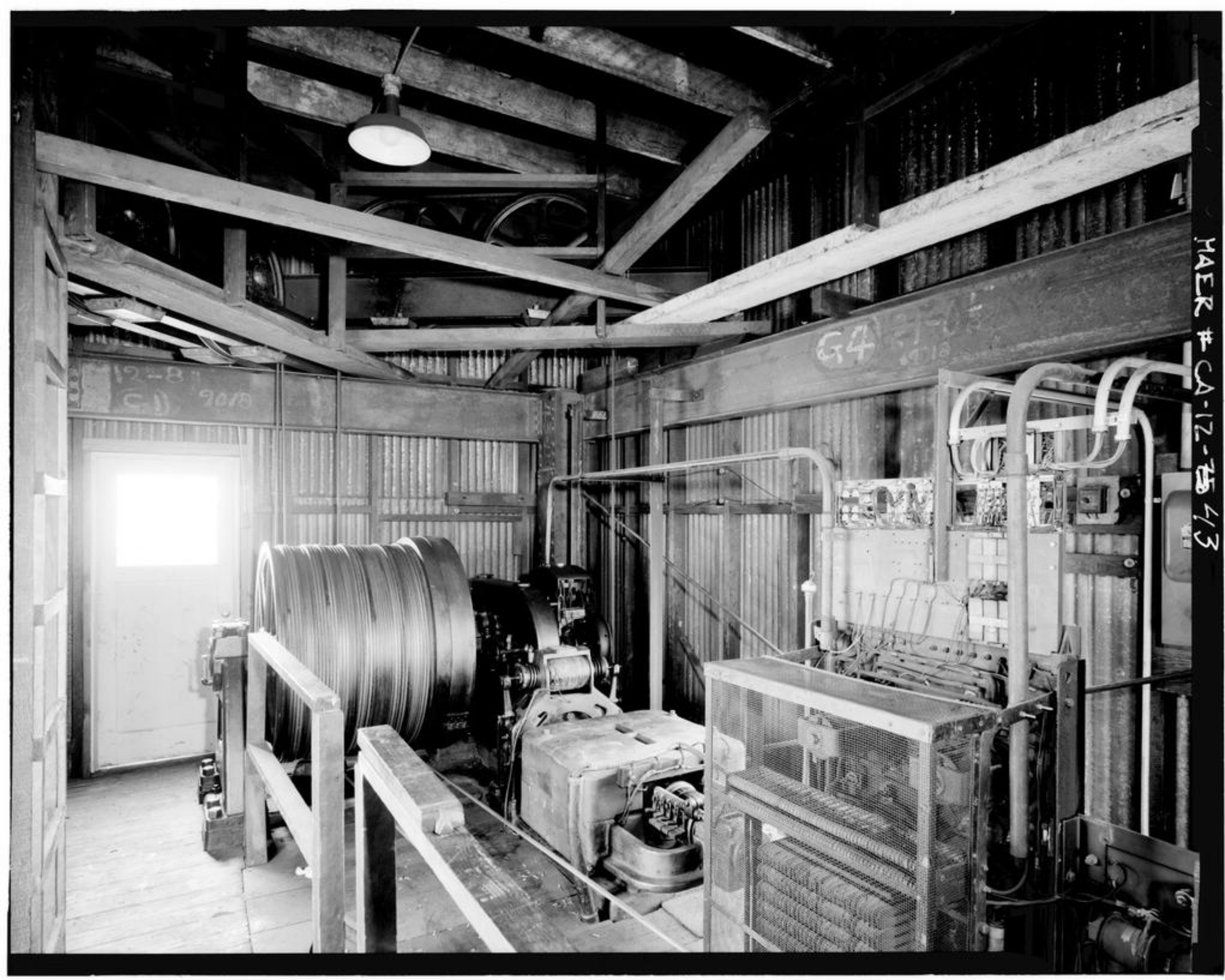


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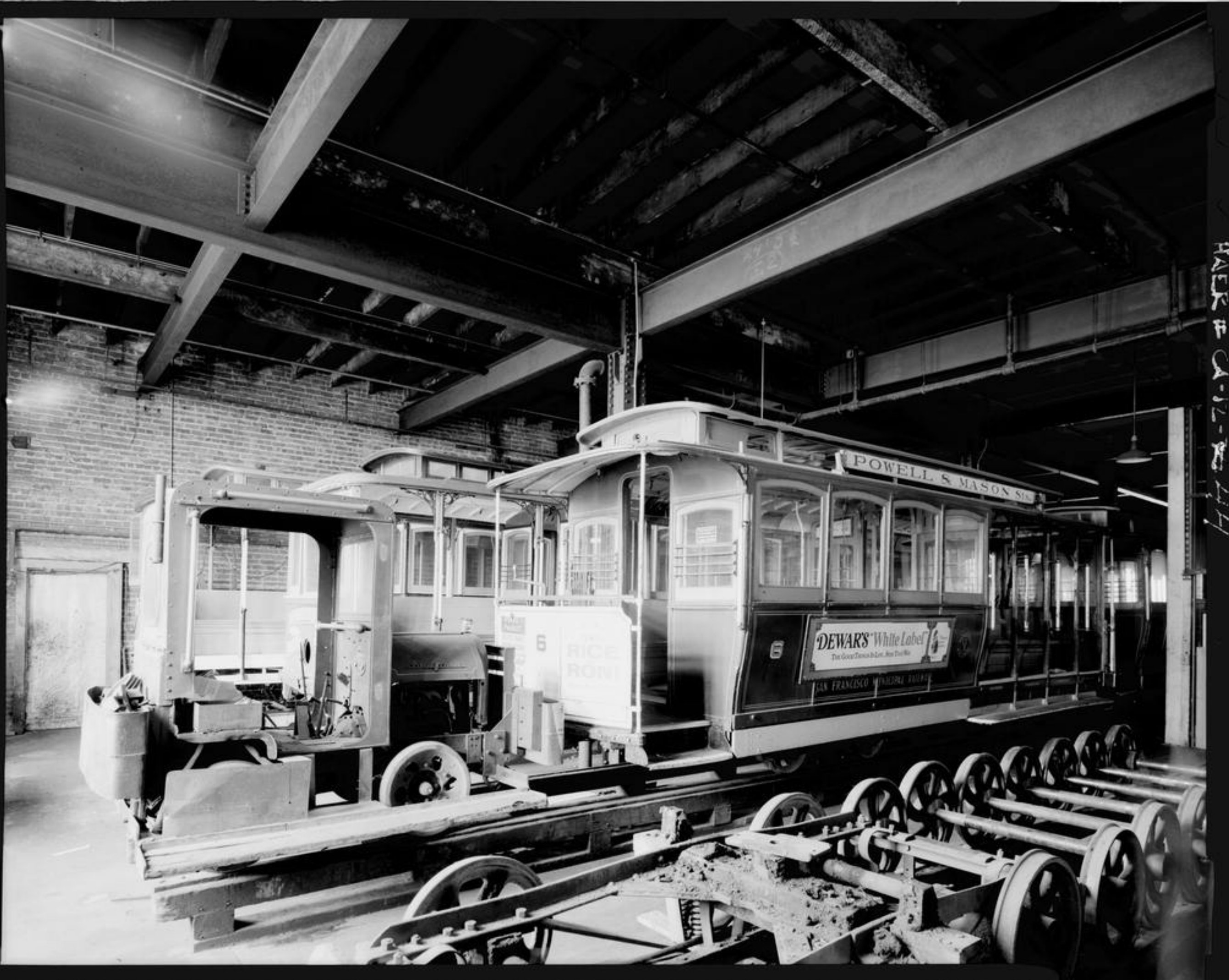
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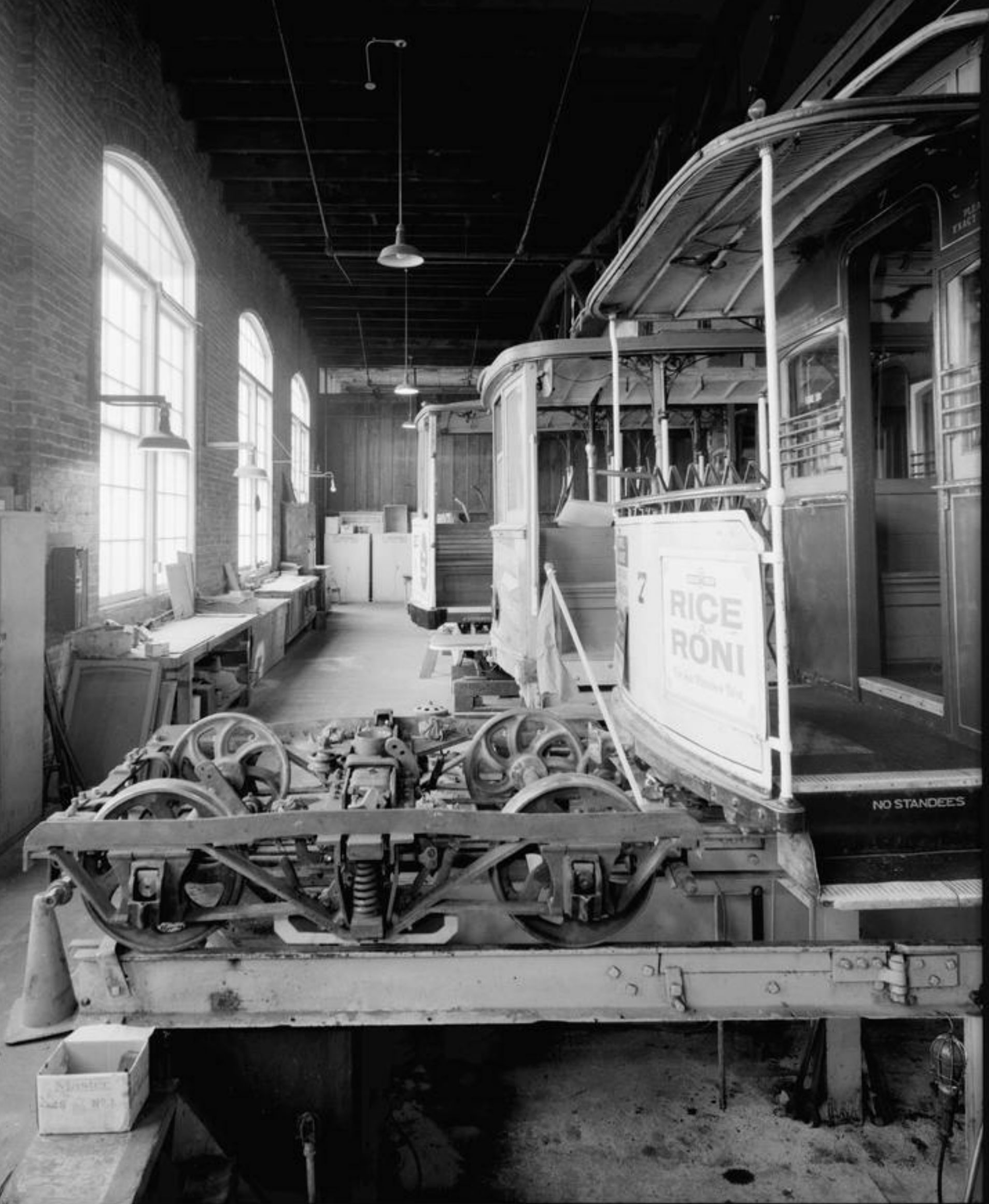
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HAER # CA-12-80-18





TRANSFER PUNCHING  
OVER GARRAGE CANS  
ONLY

NOTICE TO PLATFORM PERSONNEL  
TO STOP CABLE WORKING DUE TO A STRIKE  
PHONE DISPATCHER - 558-3604 - 36  
CABLE WORKING - 558-3604  
FOR ALL OTHER EMERGENCIES, PHONE  
CENTRAL CONTROL - 558-3604 OR 558-3604

CABLE WORKING  
PAYROLL  
PHONE  
NO. 558-3604

ATTENTION  
NO CHECKS  
PHONE

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HALK # CA-17-22-50



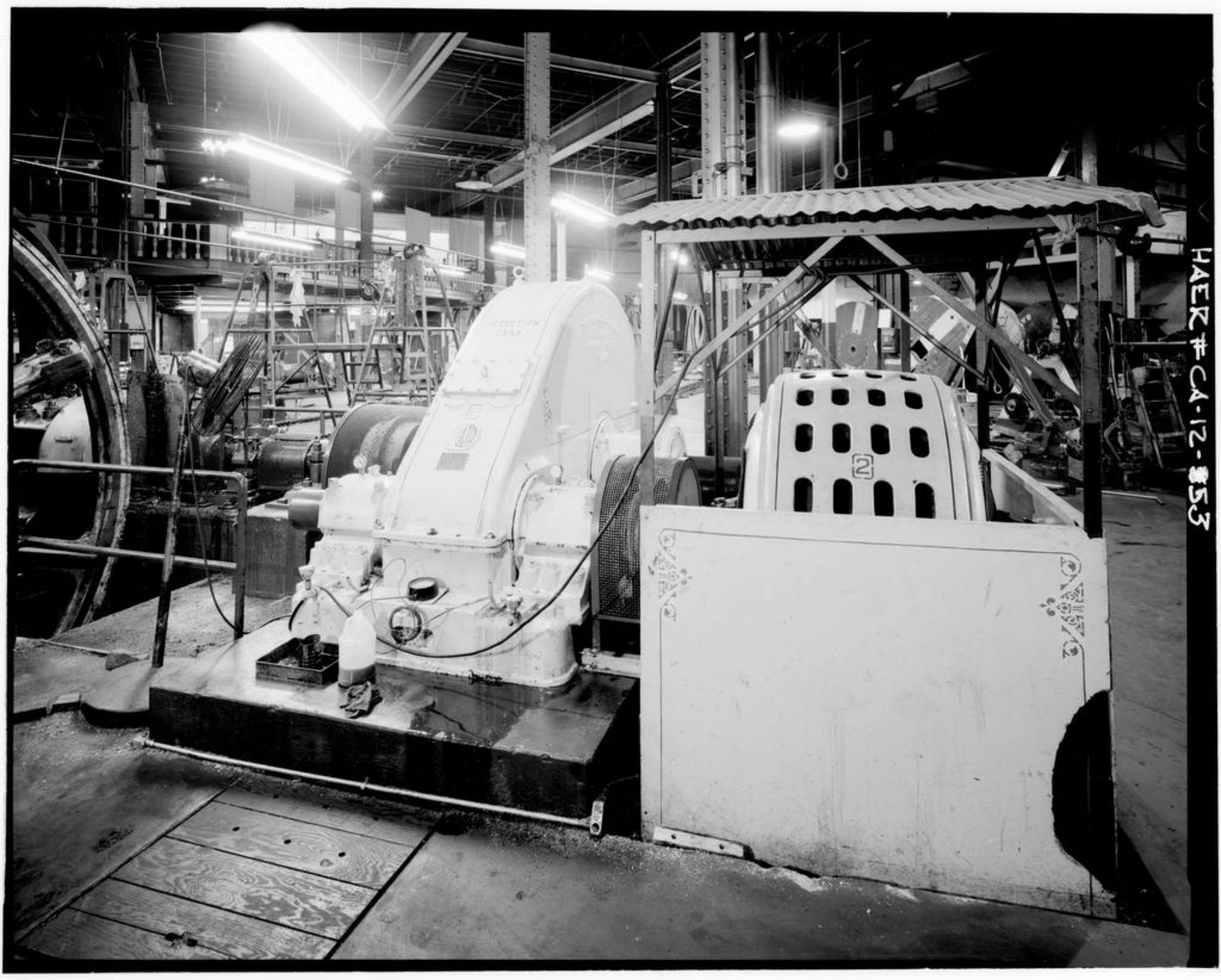
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THE CABLE

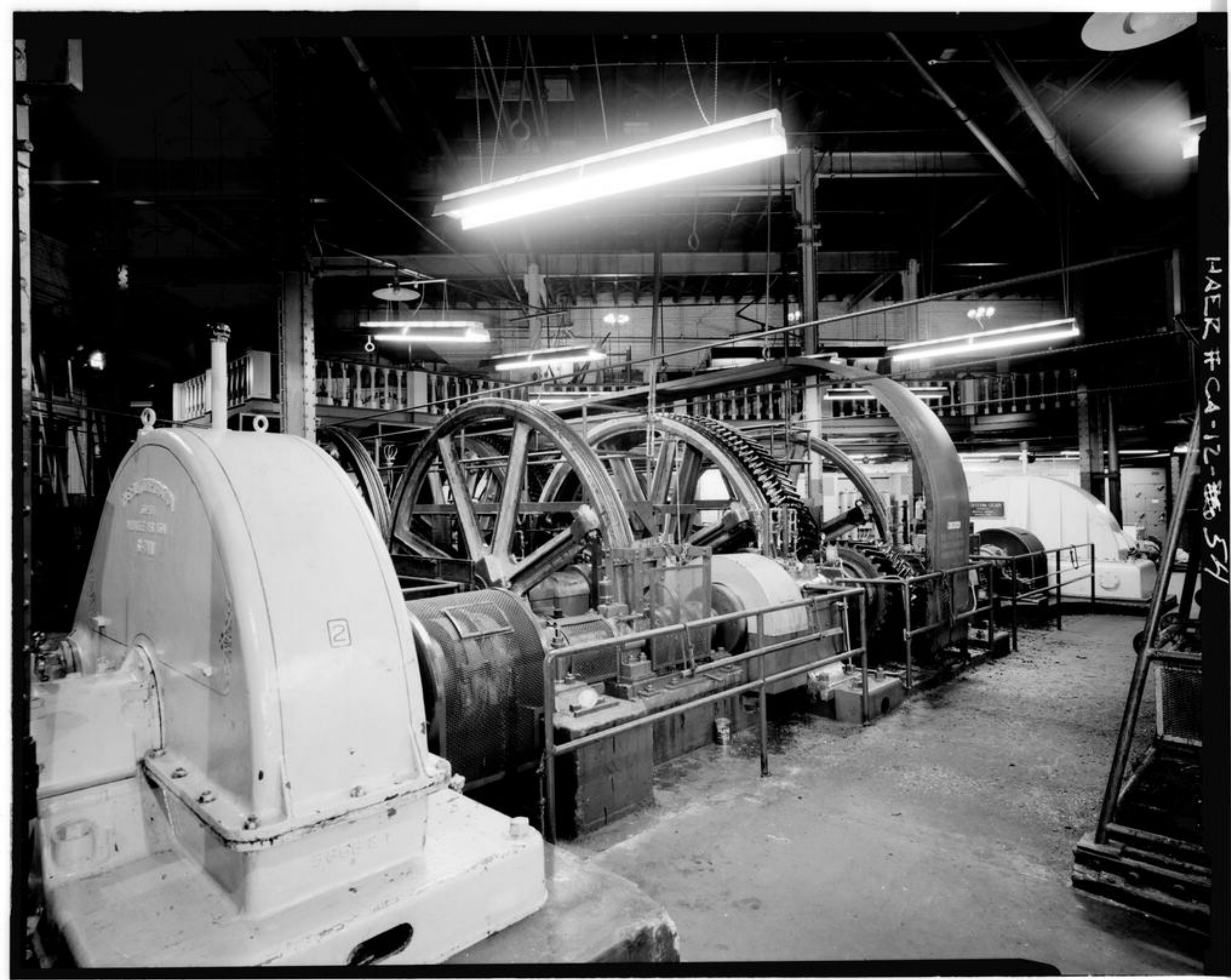
THE FOUR CABLES USED IN THE CABLE CAR SYSTEM ARE COMPOSED OF SIX STRANDS, EACH IN TURN HAVING SIXTEEN WIRES, SURROUNDING A MANILA HEMP CORE. THE BREAK PULL OF THE CABLE IS 16,000 POUNDS, WHICH IS TWICE THE PULL EXERTED BY ALL THE CABLE CARS AT ANY ONE TIME. CABLE SPEED IS 9 MILES PER HOUR, OR 792 FEET PER MINUTE, OR 13.2 FEET PER SECOND. CABLE LIFE AND REPLACEMENT COSTS ARE GIVEN BELOW.

California - 21,500 feet	Average life - 200 days	\$18,000 per cable	\$72,500 per year
Hyatt - 15,700 feet	Average life - 125 days	\$15,000 per cable	\$61,500 per year
Franklin - 21,500 feet	Average life - 110 days	\$ 8,500 per cable	\$26,500 per year
Alameda - 10,100 feet	Average life - 100 days	\$ 8,000 per cable	\$17,500 per year

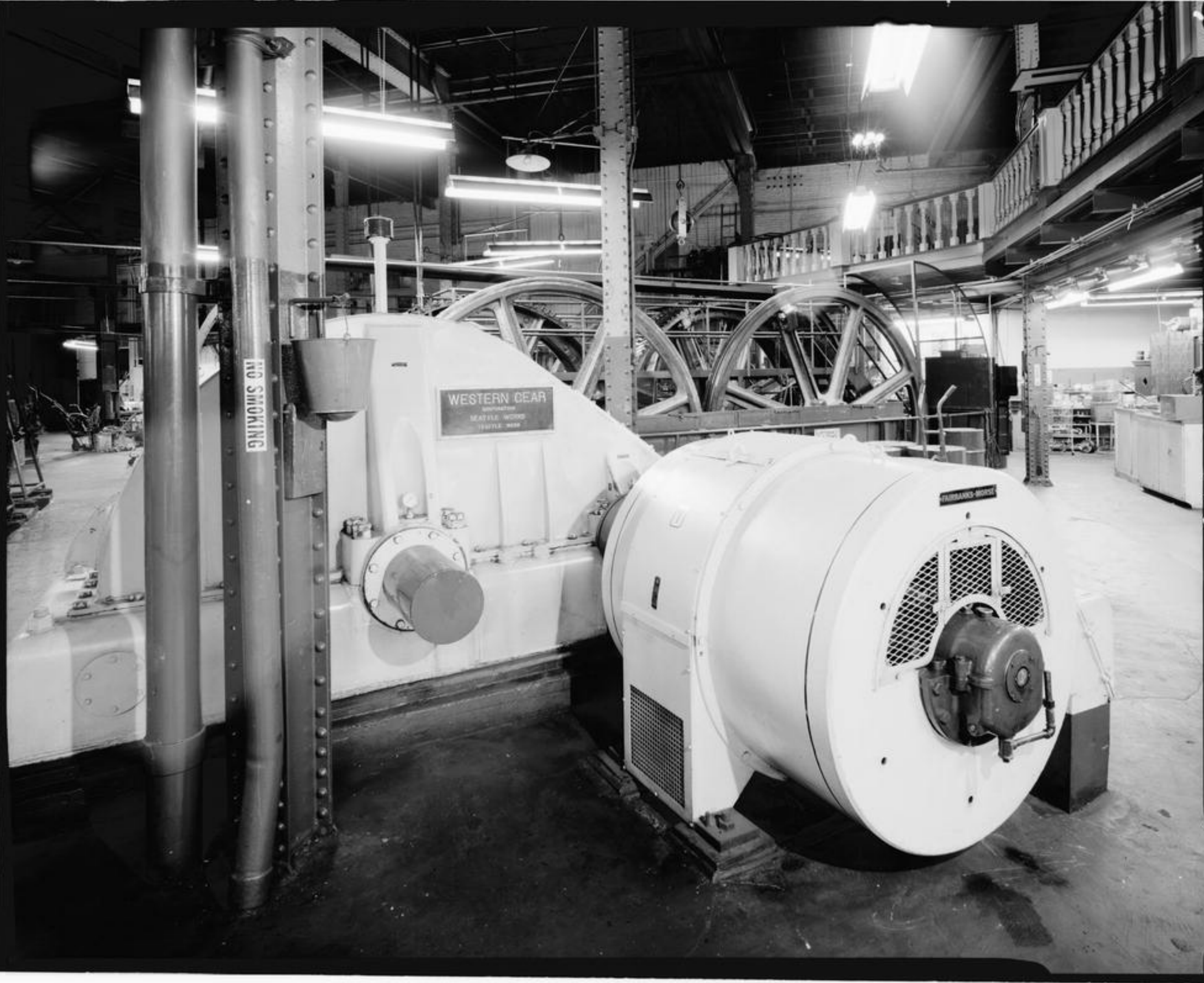


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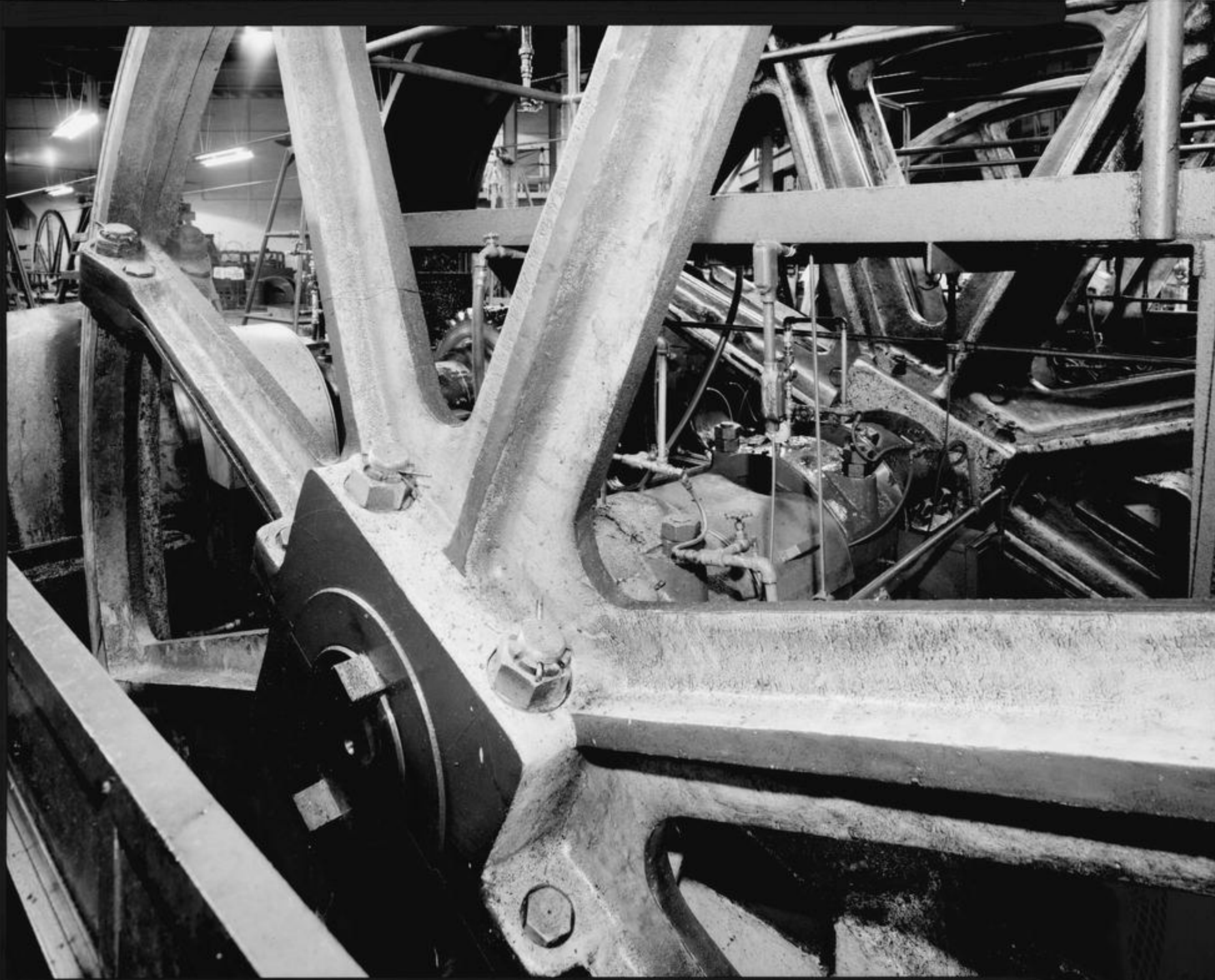


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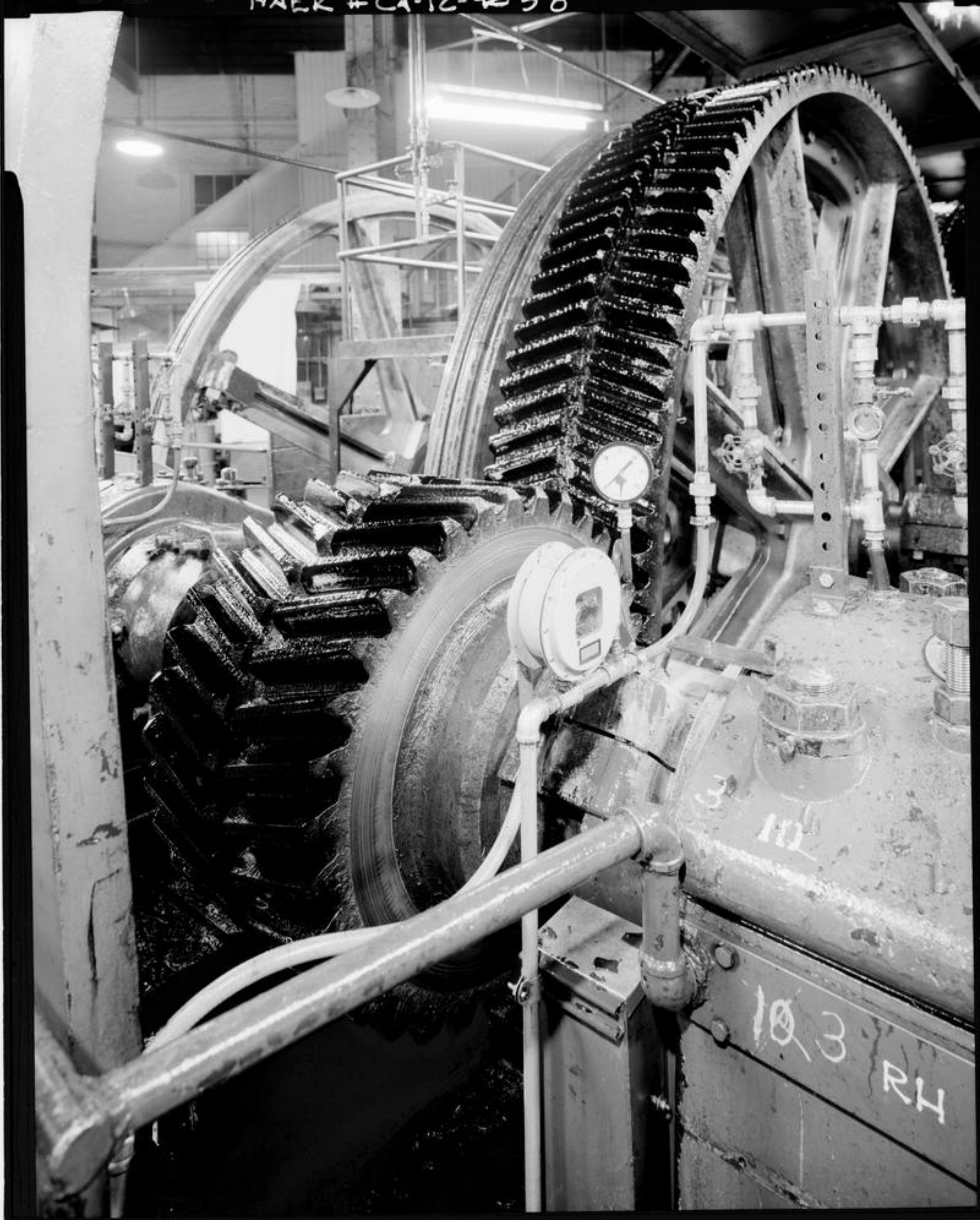


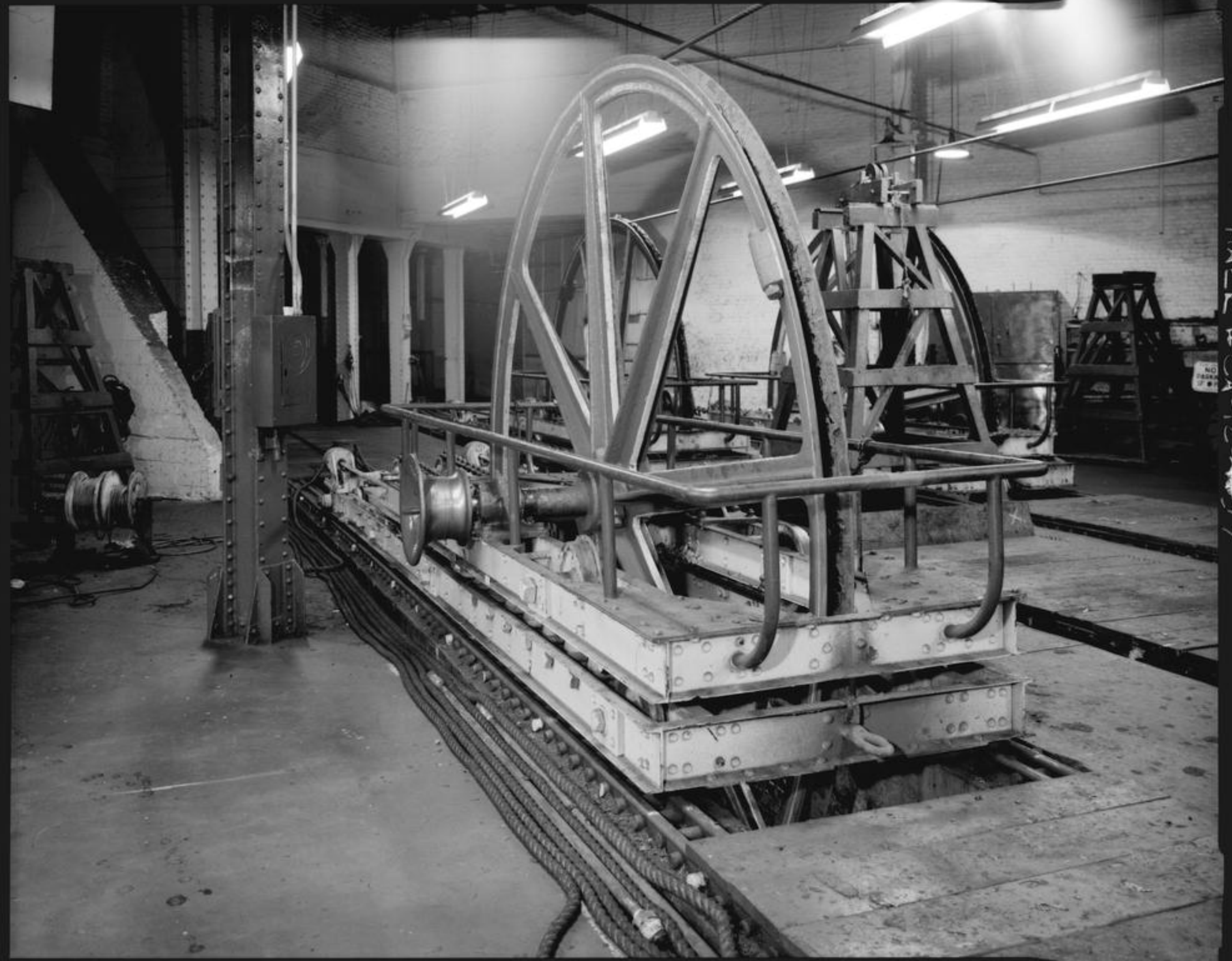


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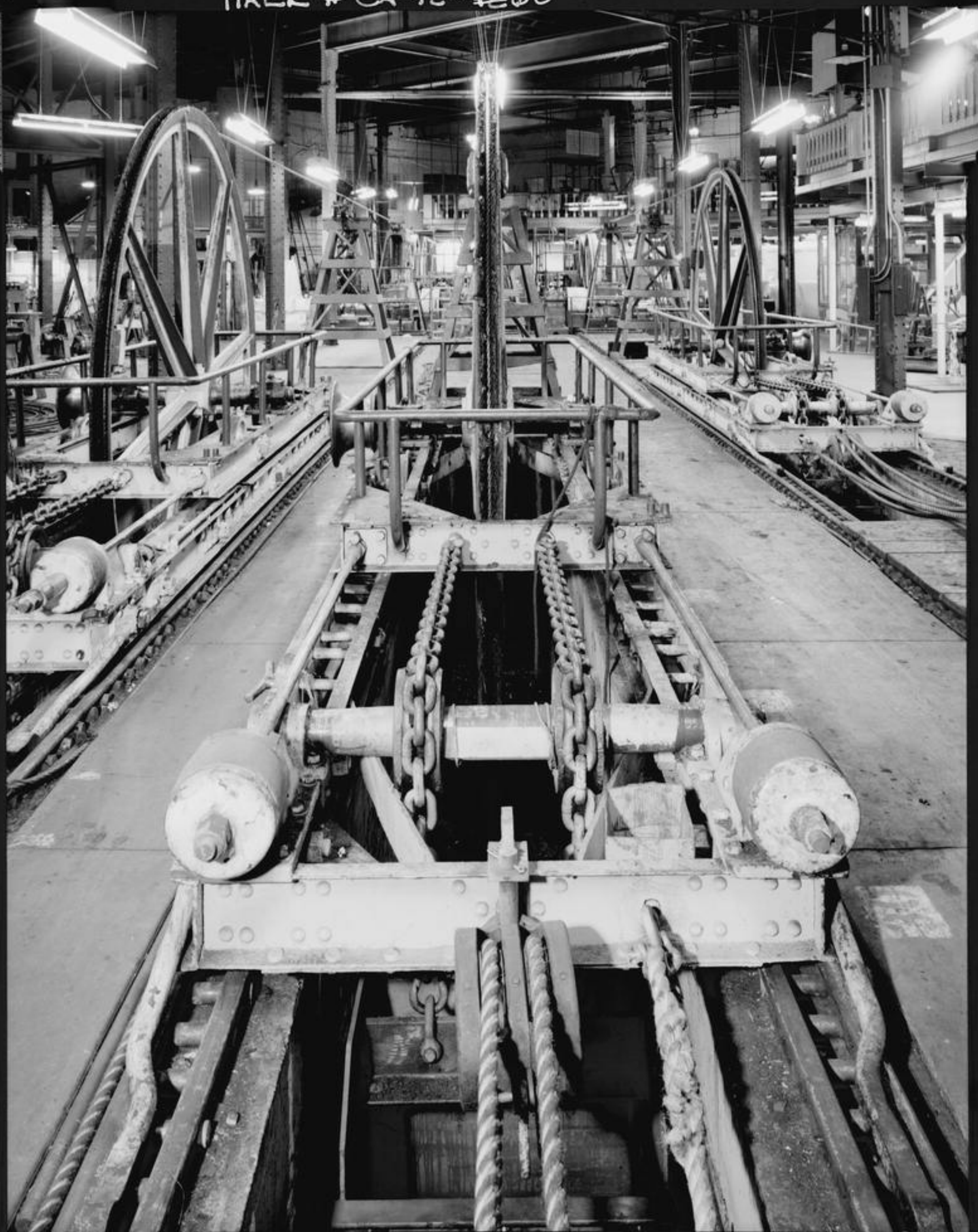




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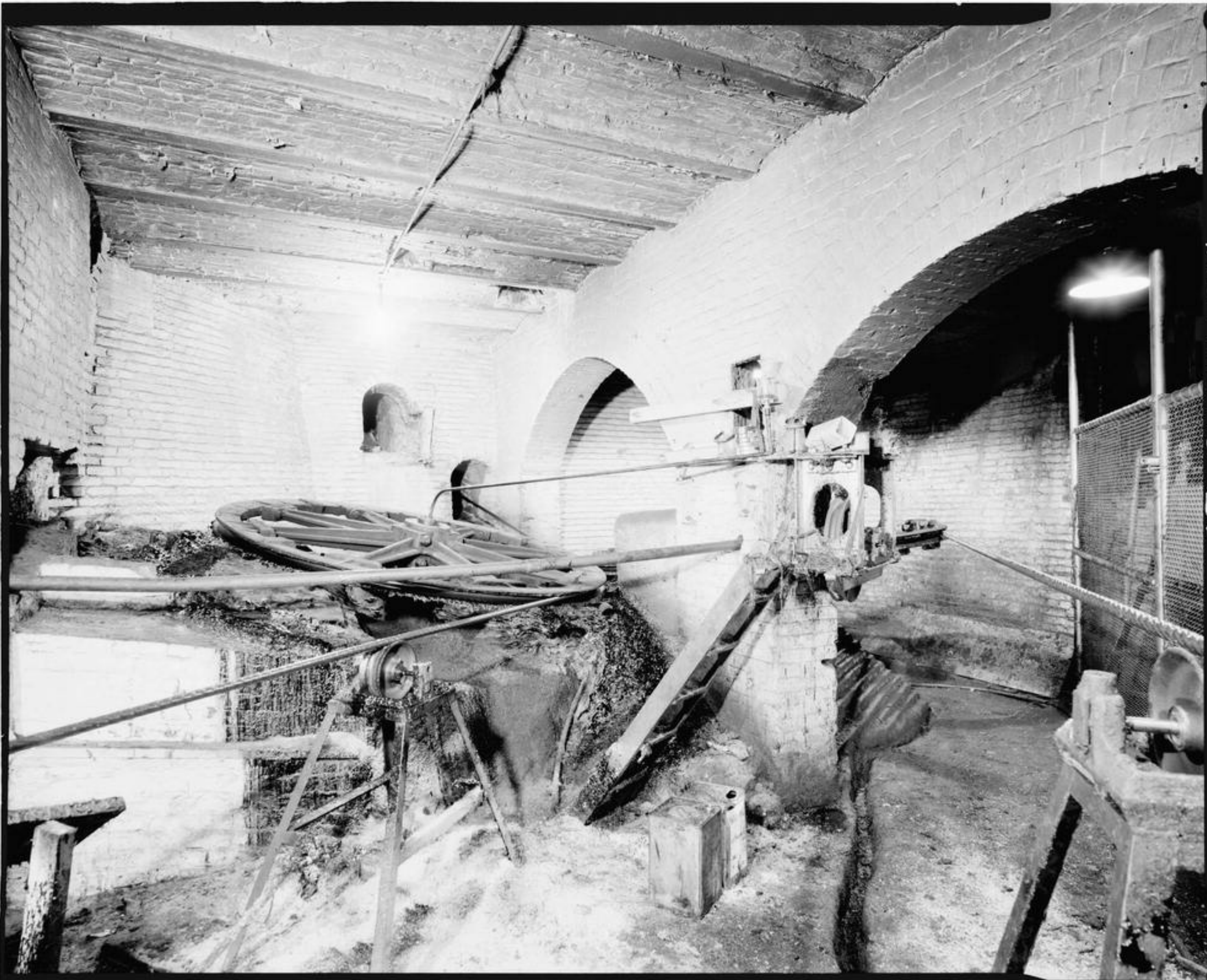


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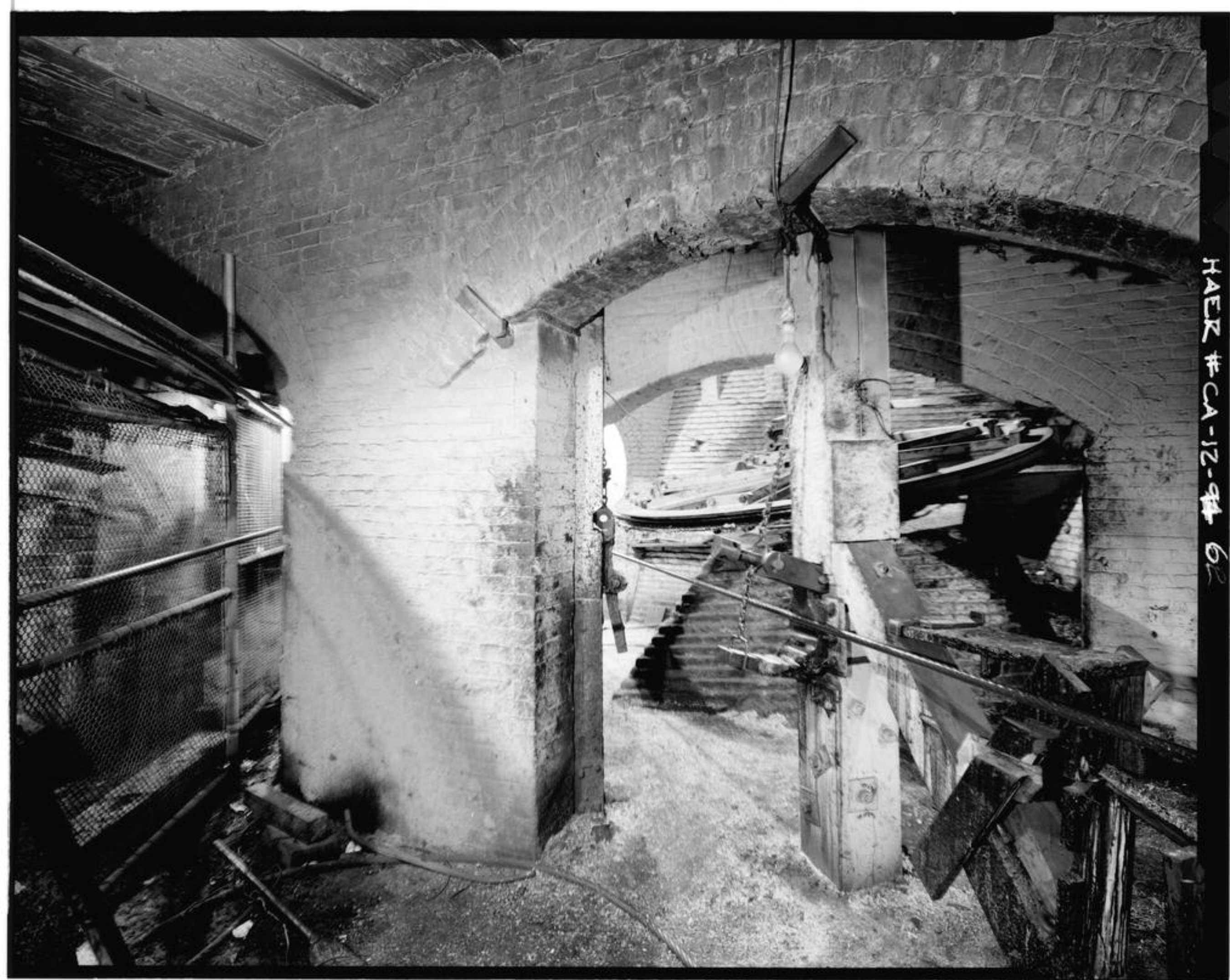


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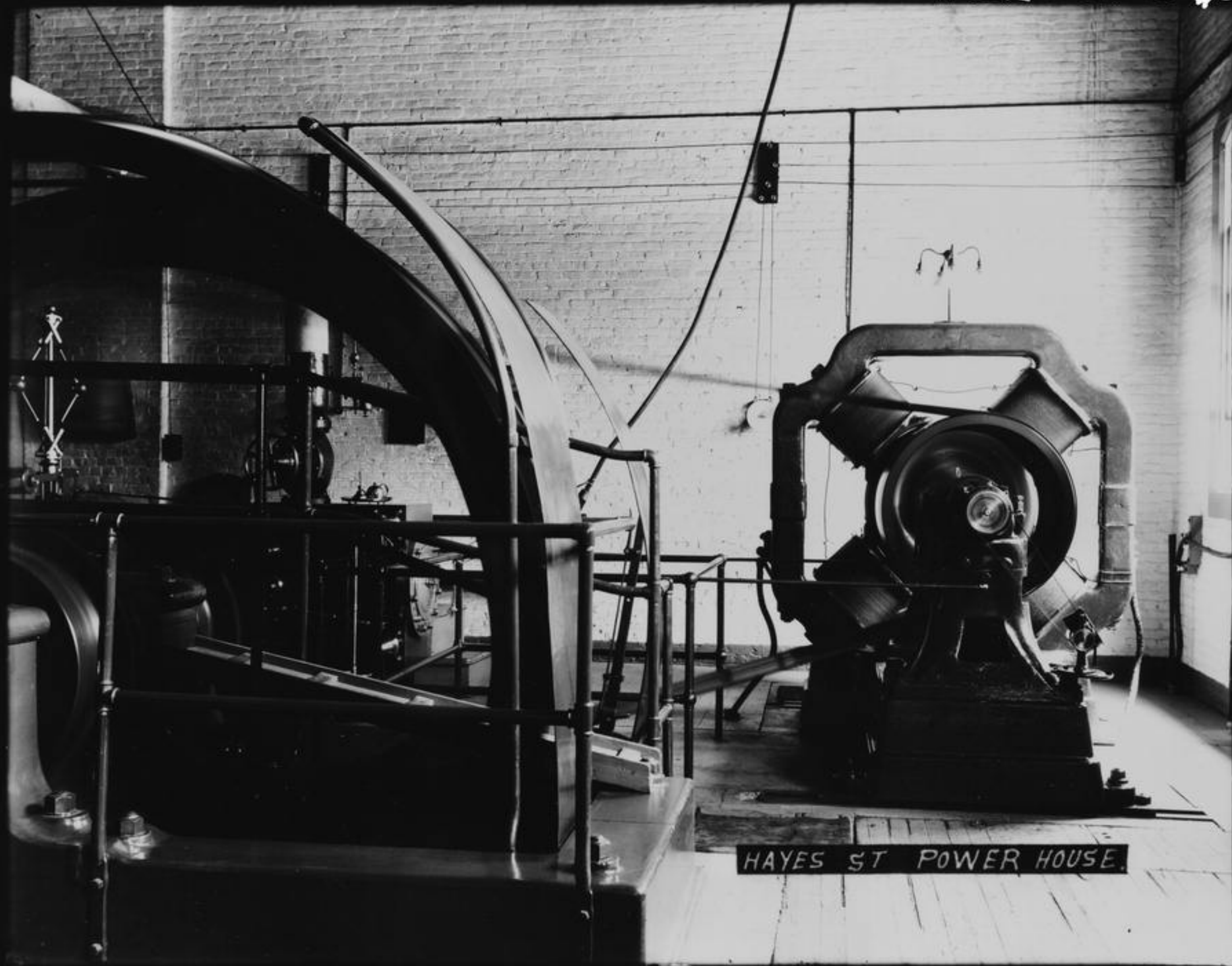


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HAYES ST POWER HOUSE

