## THE FAILURE AND RIGHTING OF THE TRANSCONA GRAIN

 ELEVATOR

# Bins Under Construction Using Jack Forms 



Elevator Before Failure Looking NE


Section Through Elevator - Looking West

Elevator in 1993
(Now Owned And Operated by Parrish \& Heimbecker)



Elevator During
Failure - Note
Conveyor Belts and Cupola Still Attached


View of Bins Looking East - Note Cupola Detached


West Side of Elevator After Failure


View of Elevator From South West


General View of Elevator \& Bins From NE


N End Showing Inclination of Bins - Note Heaved Earth

## Section Through Elevator Before \& After Failure




View of Construction Camp

## UNDERPINNING THE WORKHOUSE


D. Ferguson (CP Electrician), A. Chestnut (Timekeeper), P. Burk Gaffney (CP Inspector)


Shores on West Side of Workhouse


Foot and Top of Shores in Workhouse


## Disposal of Dirt From Workhouse Basement



Electric Hoist in Workhouse Basement


## Secondary Shores in $2^{\text {nd }}$ Floor of Workhouse



Sinking "Chicago Well"


Curved Skidway For Hoisting Pails of Dirt From Chicago Wells


Pulsometer Pumps Barely Holding Water in Well


Steam Driven Piston Pump


Starting of For Red River at - 32 deg

RIGHTING THE BINHOUSE


Unloading Boiler

## The "Original" Plan To Right The Structure



Heaved Earth on East Side of Bins Before
Excavating


## Opening Trench on E Side of Bins



Excavation on East Side of Bins


East Trench Looking North


East Trench Looking North


## Slide in East Side Trench



Excavating East Side of Bins Looking South


Starting to Drift Tunnels Under Bins


Excavation on East Side of Bins


## East Conveyor Loaded Looking North



## Looking West Through North Conveyor Trench



Lidgerwood Hoist at North End


## Hauling Dirt Up North Conveyor Trench



North and East Conveyor Stringers


Drive and Hopper of East Conveyor


Dirt Hopper
Discharging to Wagon


Disposal of Earth From East Excavation


Pushers West of Bins


West Side Pushers - Note Holes in Side of Bins to Tap Grain


West Side Pushers


Lowering Pushers on West Side of Bins


Shoring Screws at Foot of Pushers


Timber Pushers on West Side of Bins


## Sand in Crevice West of Bins



Kicking Braces in East Trench


## Failure of BC Fir Foot Block of Kicking Brace



## Excavating Between Workhouse and Bins



East Side of Mat Supported on Posts \& Screws


Bracing in East Trench


Shores Under East Side of Mat


Earth Under Bins Failing


Controlling Movement Before Setting Jacks


## Site of Accident to A. Perrault

-Row K to 16 deg

- Row I to 8 deg
- Row H to vertical


The "Revised" Plan to Tip \& Lift The Structure


Cross Bracing in Conveyor Tunnel (left) \& Steam Powered Jackhammer (right)


Jacks on "K" Row of Piers - Note Hole Cut Through Bin Slab


Jacking Unit on "K" Row


Crib Leaning on "K" Pier Due to Eastward Movement of 2.5 Feet


Rest Period on "K" Row Jacking Operations


View of Jacks on "J" Row of Piers


Fig. 16.
Fulcrum on "I" Row of Piers


ARRANGEMENT OF TIMBERING ON "I "PIERS

## Timber Rocker on "I" Row of Piers


"G" and "H" Row Screws Under Mat


Fulcrum on "H" Row of Piers

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N End Showing Angle of Bins (9 deg)


Broken Screw From "G" Row


Cribbing and Jacks on "G" Row


Slacking Screws on "G" Row


Cribbing and Jacks on "G" Row


Wells, Cribbing, Jacks \& Inclined Posts Under Mat


Experiment to Show Pier Loading Under Bins

## Protractor in Bins (bottom) \& Plumb Bob (right) Showing Inclination of Binhouse




Pay Day For Jacking Crew!


View From Southeast During Righting


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View From Southwest During Righting


View From Northwest During Righting


Scaffold Supporting Centrifugal Pump in Chicago Well


## Concrete Mixer



View From Southeast After Righting


North End of Bins After Righting


Northeast Corner After Righting


Messer's Barbier, Rankin, Ross \& Lewis


## Site of Accident to Gordon Ferris



Progress View of North End of Bins


Progress View of North End of Bins


Progress View of North End of Bins


Progress View of North End of Bins


Progress View of North End of Bins


Bins Righted - October 17, 1914 at 10:15 AM


West Side of Bins After Righting


Northwest Corner of Bins After Righting


## Grading West Side of Bins



## Sump in Basement at North End

