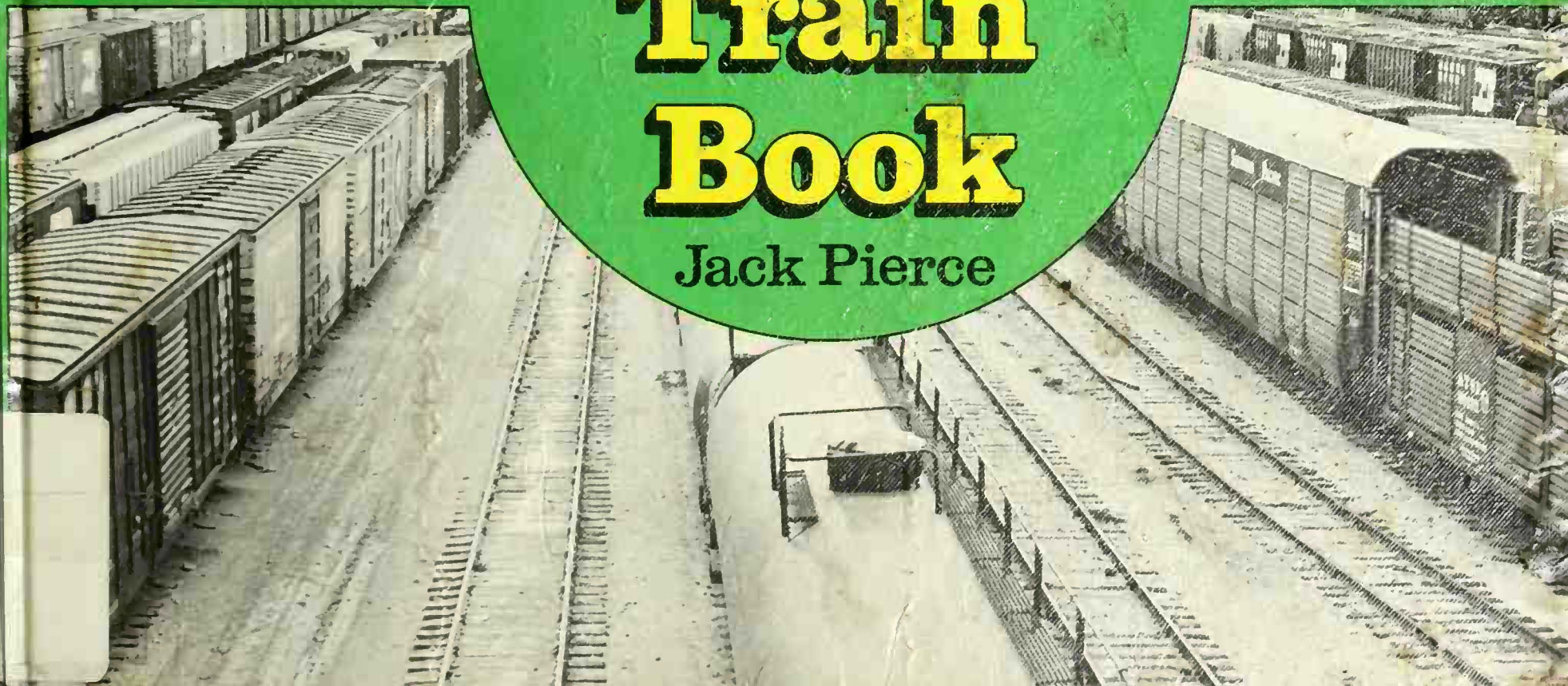


# The Freight Train Book

Jack Pierce









# **The Freight Train Book**



# The Freight Train Book

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Jack Pierce



Carolrhoda Books, Inc., Minneapolis



Special thanks to Burlington Northern Railroad and to John Burgandy of Soo Line Railroad of Minneapolis.

Grateful acknowledgment is given to Soo Line Railroad for permission to use the following photos: the gantry crane and This truck will drive away, from the Piggyback Cars page; Welding the steel floor and Loading boxcars, from the Boxcars page; Hopper cars carry loose materials, The rocks between the railroad ties, Loading an open-top hopper, and Hopper cars are loaded from the top, from the Hopper Cars page, and A work machine inserting new ties, Sawing old ties, Lifting a motorcar, and This crane may be used on or off, from the Special Equipment page.

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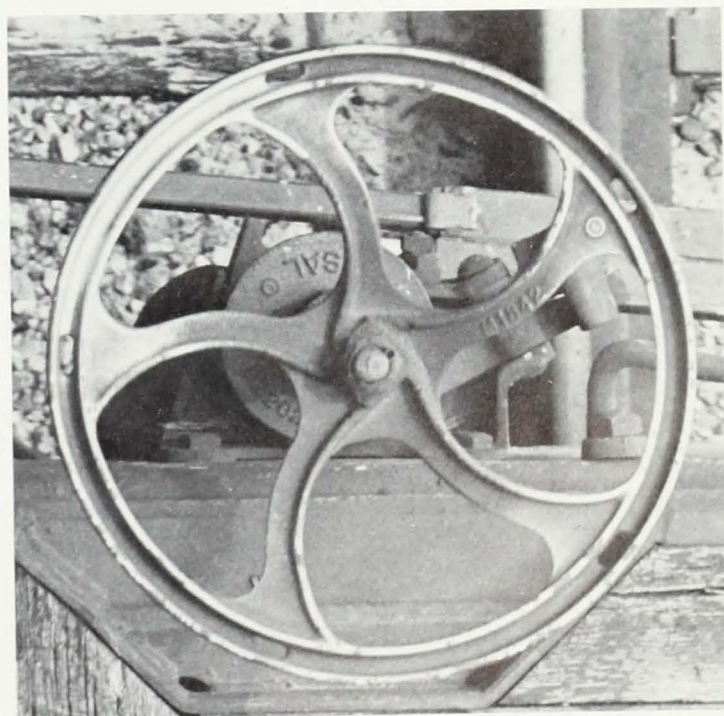
SUMMARY: Photographs and captions describe various cars  
of a freight train, including the locomotive, caboose, boxcars,  
hoppers, flatcars, piggyback cars, refrigerator cars, tank cars,  
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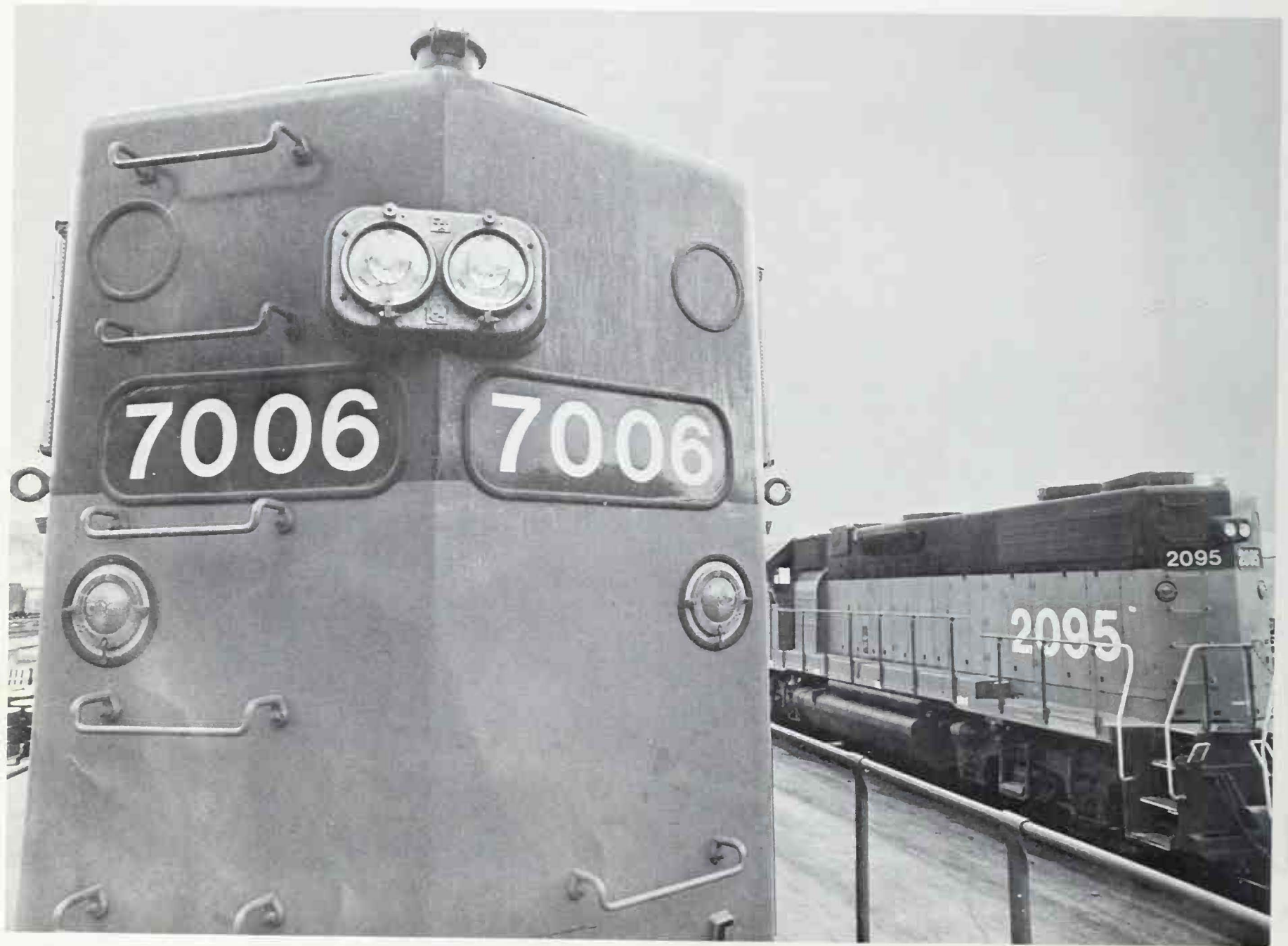
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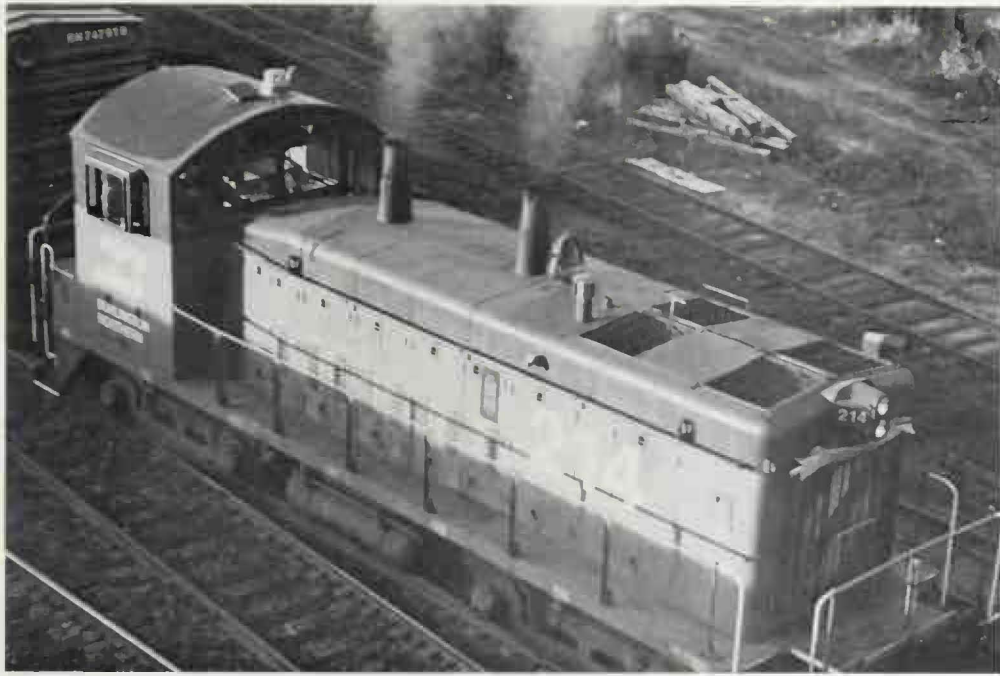
2 3 4 5 6 7 8 9 10 86 85 84 83 82 81

to my niece, Cara

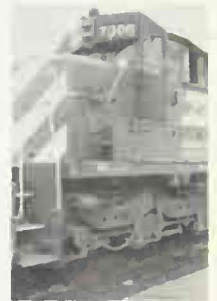


# Locomotives





Engine cooling fans



The warning bell



The warning light and horn



Each locomotive has a different number.



3,000-gallon diesel fuel tank

# Engineer's Cab





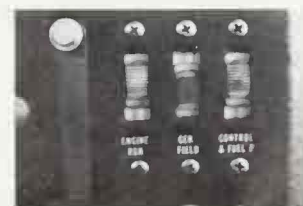
The engine power throttle



The main control panel



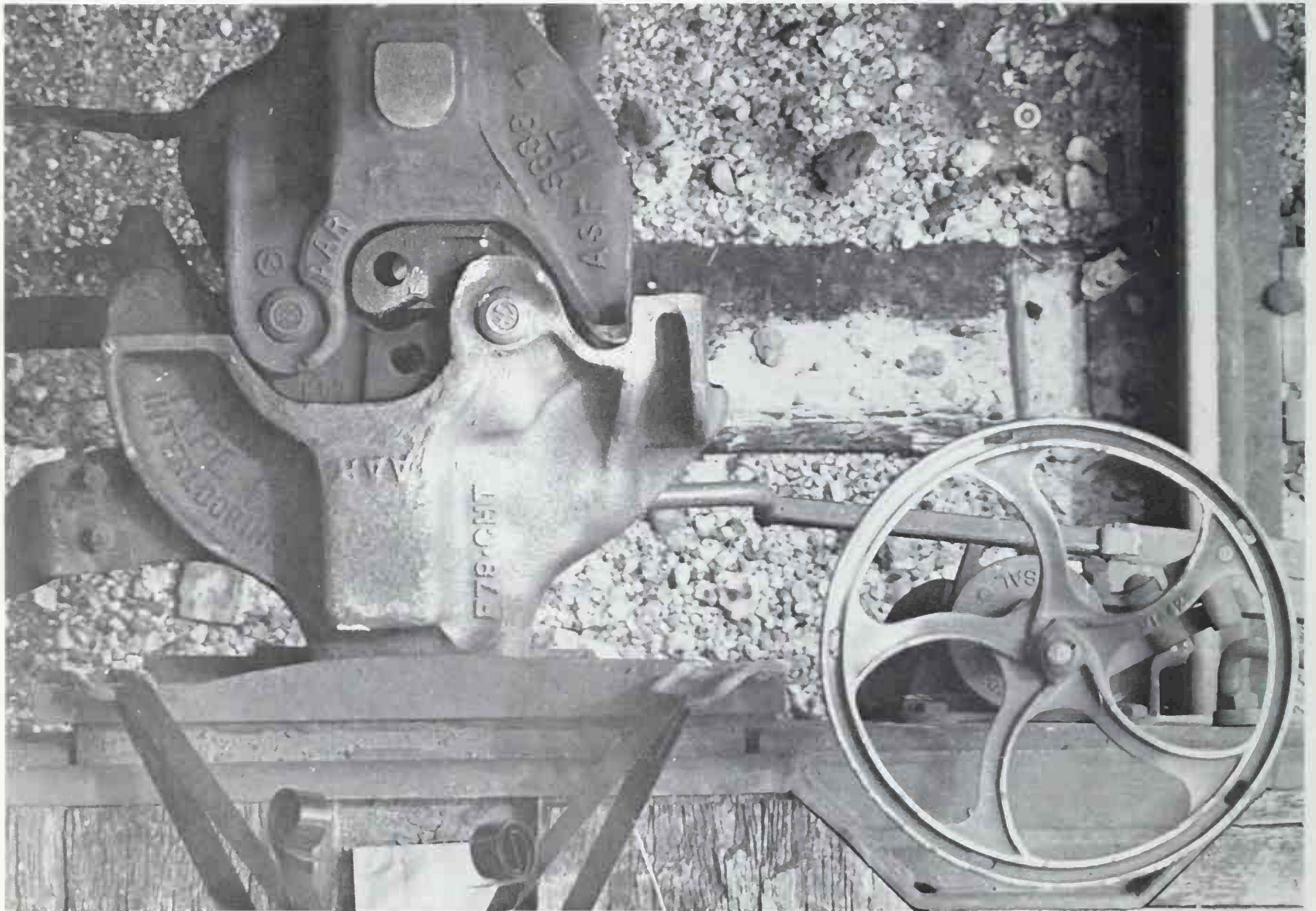
Buttons, levers, switches



A pressure gauge



# Couplers



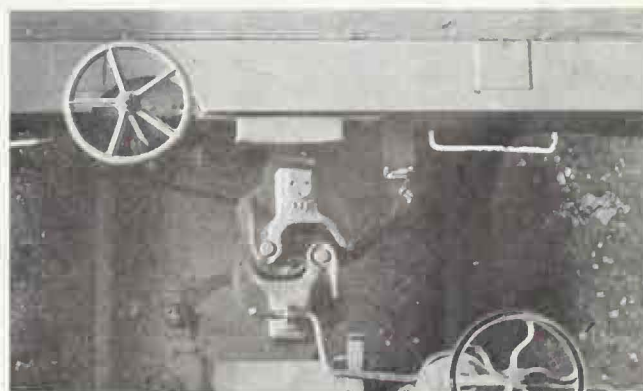
Looking down on two joined couplers. Couplers connect one car with the next. The wheel at the right is not part of the coupler; it is the brake wheel.



Couplers fasten automatically when one car bumps into another. The crooked rod connected to the coupler is called the uncoupling lever. Pulling it will release the couplers.

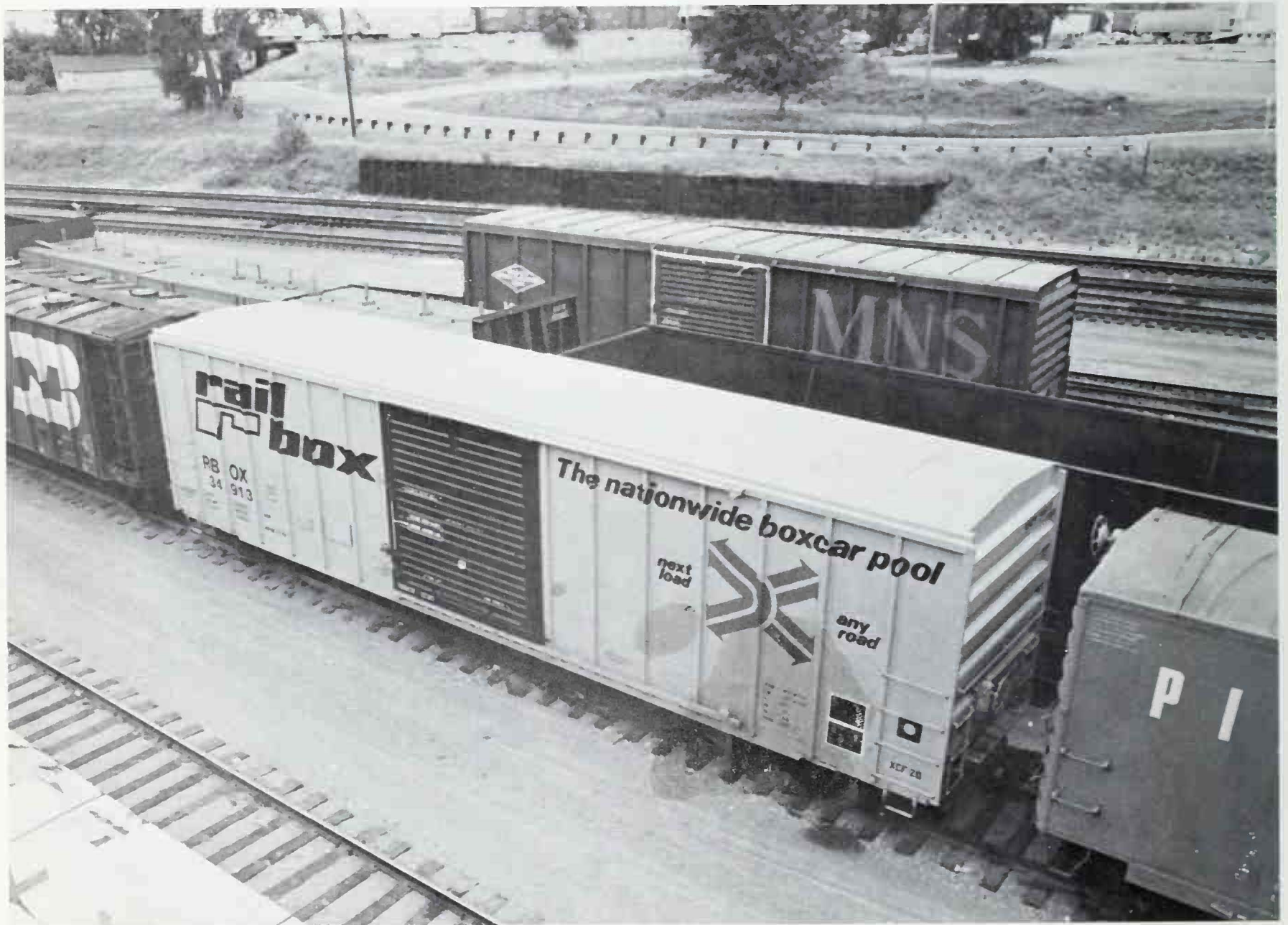


New couplers not yet attached to cars

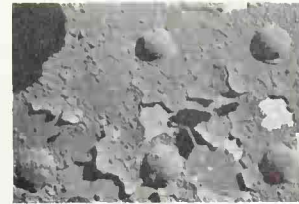


Brakes are usually applied on all cars at once from the engineer's cab or the caboose, but individual brakes may be applied by turning the brake wheel at the end of each car.

# Boxcars



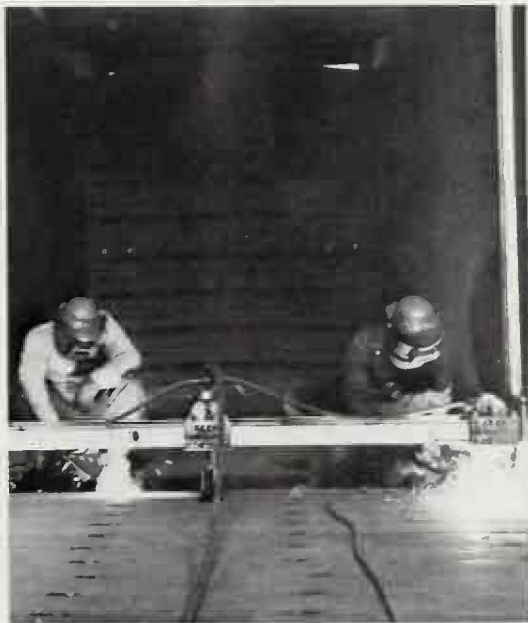
Boxcars protect their cargoes from the weather.



Inside an empty boxcar



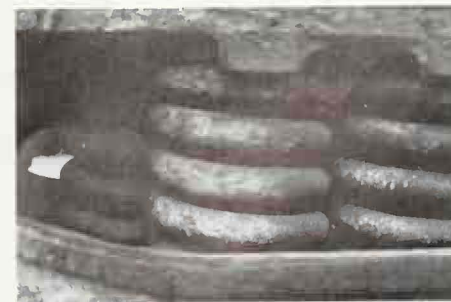
Loading a boxcar. These boxes contain model cars.



Welding the steel floor is part of building a new boxcar.

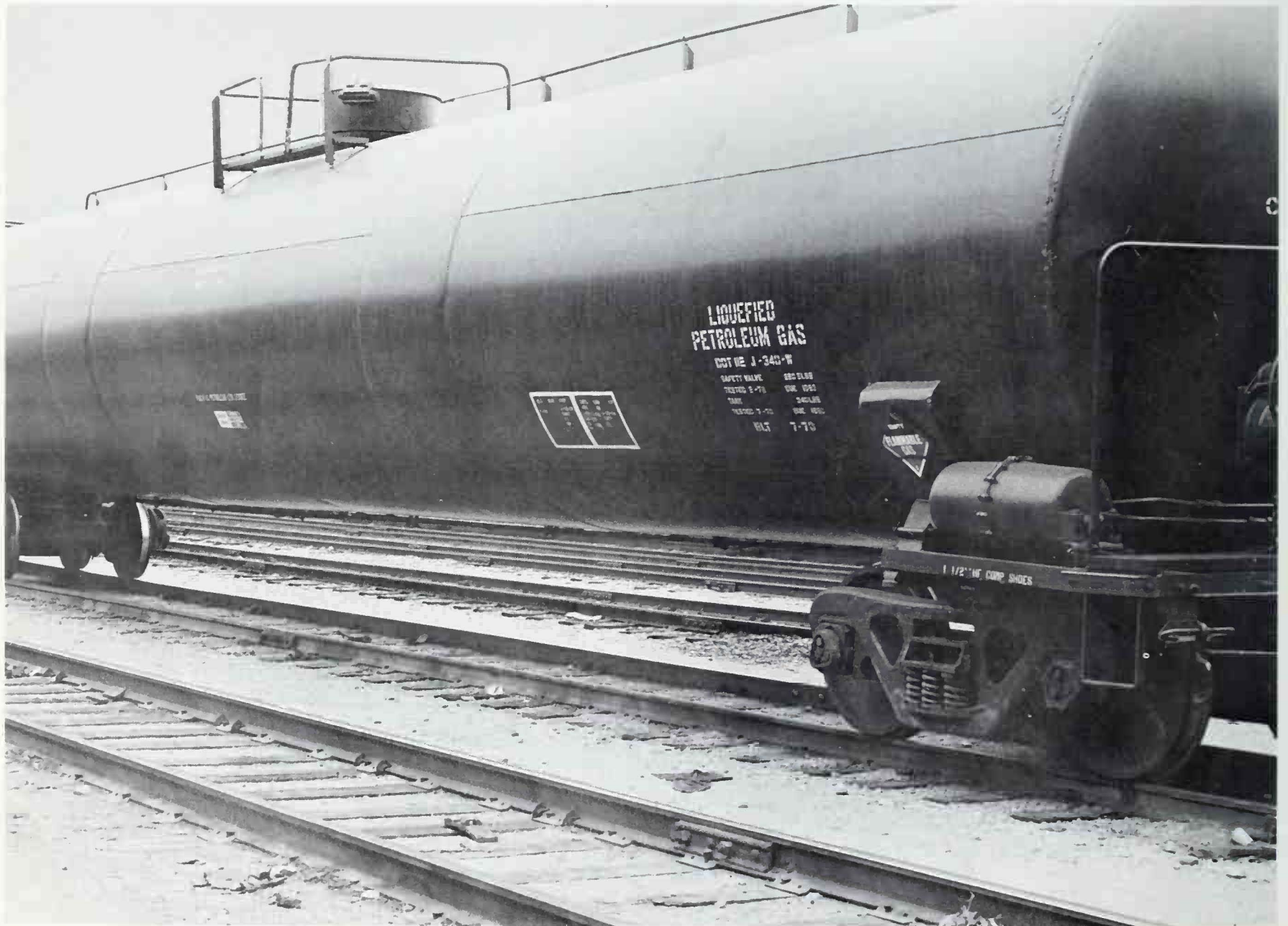


An old wooden boxcar



All cars have springs to help cushion bumps.

# Tank Cars



Tank cars carry liquids like molasses, vegetable oil, and printers' ink.



This tank car has a ladder and a brake wheel on the end.



Tank cars are loaded through top hatches and unloaded near the bottom.

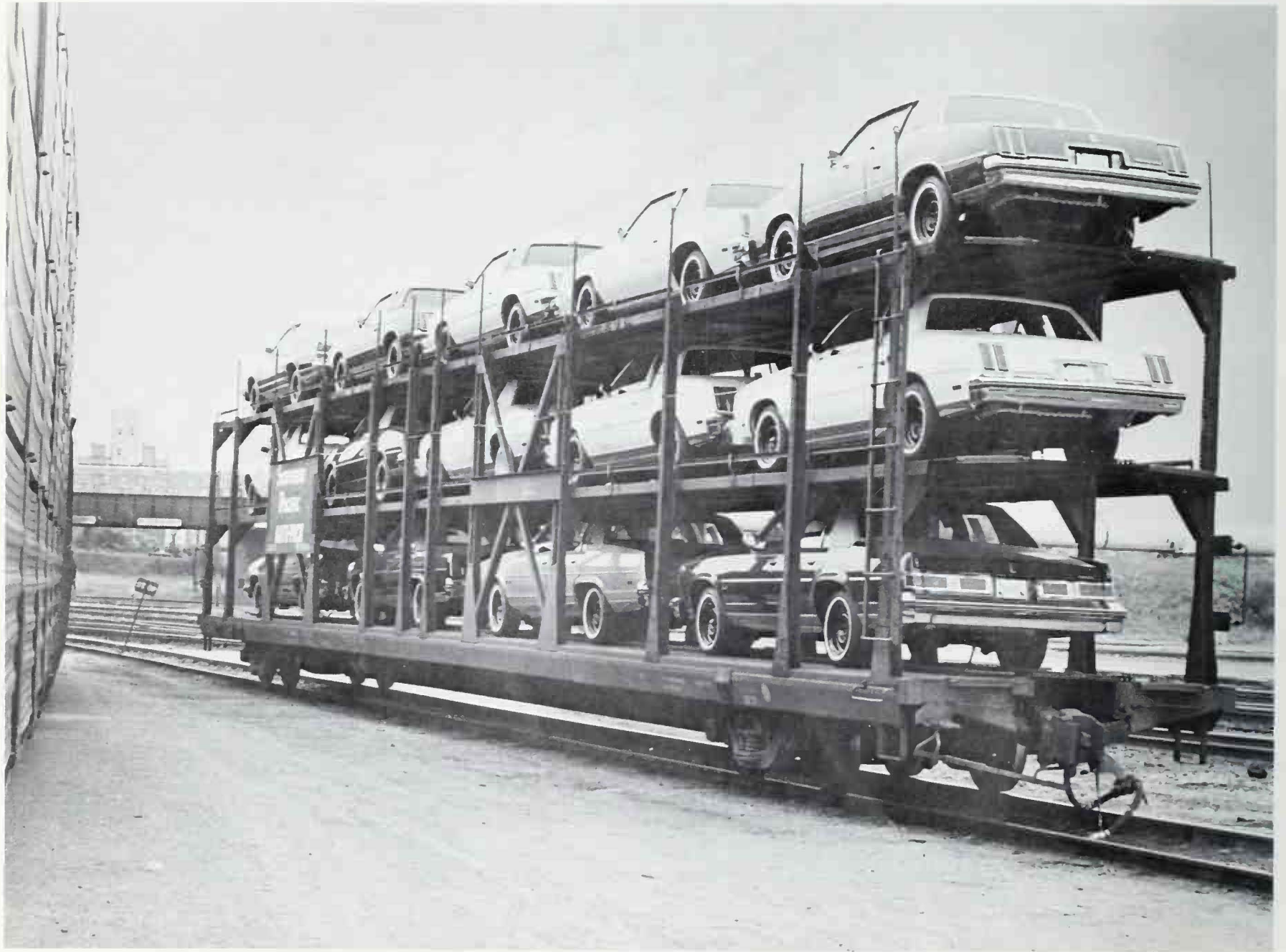


This tank car has three compartments.



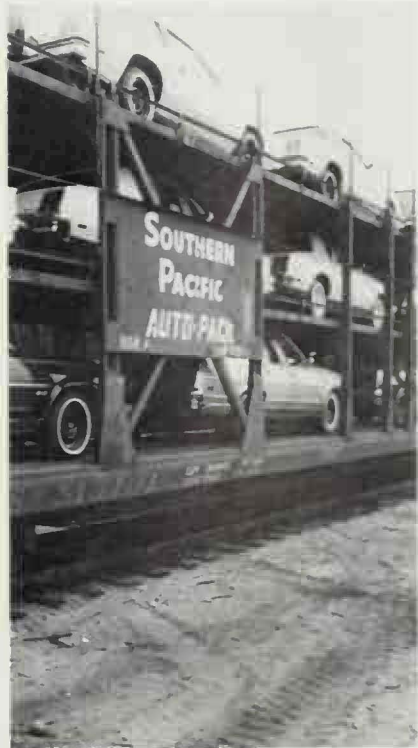
The top hatch of one compartment

# Auto Carriers





Cars and trucks are held securely with chains.



Ramps are used to load and unload cars.



# Hopper Cars



Hopper cars carry loose materials like fertilizer and rock. This car is being loaded with grain.



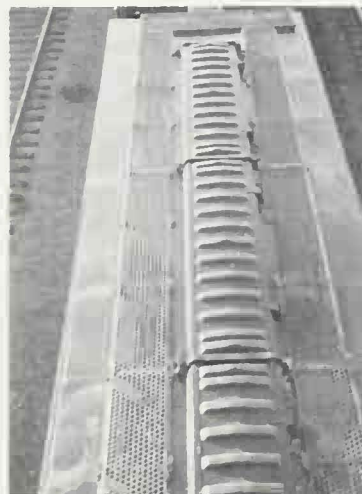
The rocks between the railroad ties are dropped from a hopper.



Loading an open-top hopper car



Hopper cars are loaded from the top and unloaded from the bottom.



Some hopper cars have covered tops. Covered hopper cars have different top hatches.



# Flatcars





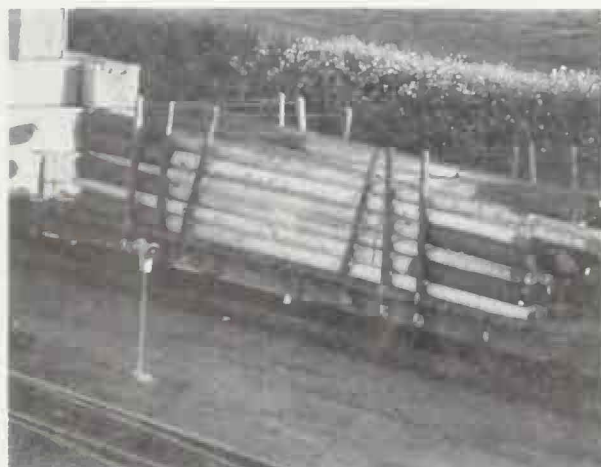
Flatcars carry many cargoes: tractors . . .



railroad ties . . .



more tractors . . .



utility poles . . .



railroad car wheels.



The cargoes  
are held on  
with chains.

# Piggyback Cars



Piggyback cars are longer than flatcars and have special fasteners to attach trailers.



This truck will drive away and leave its whole trailer on the piggyback car.

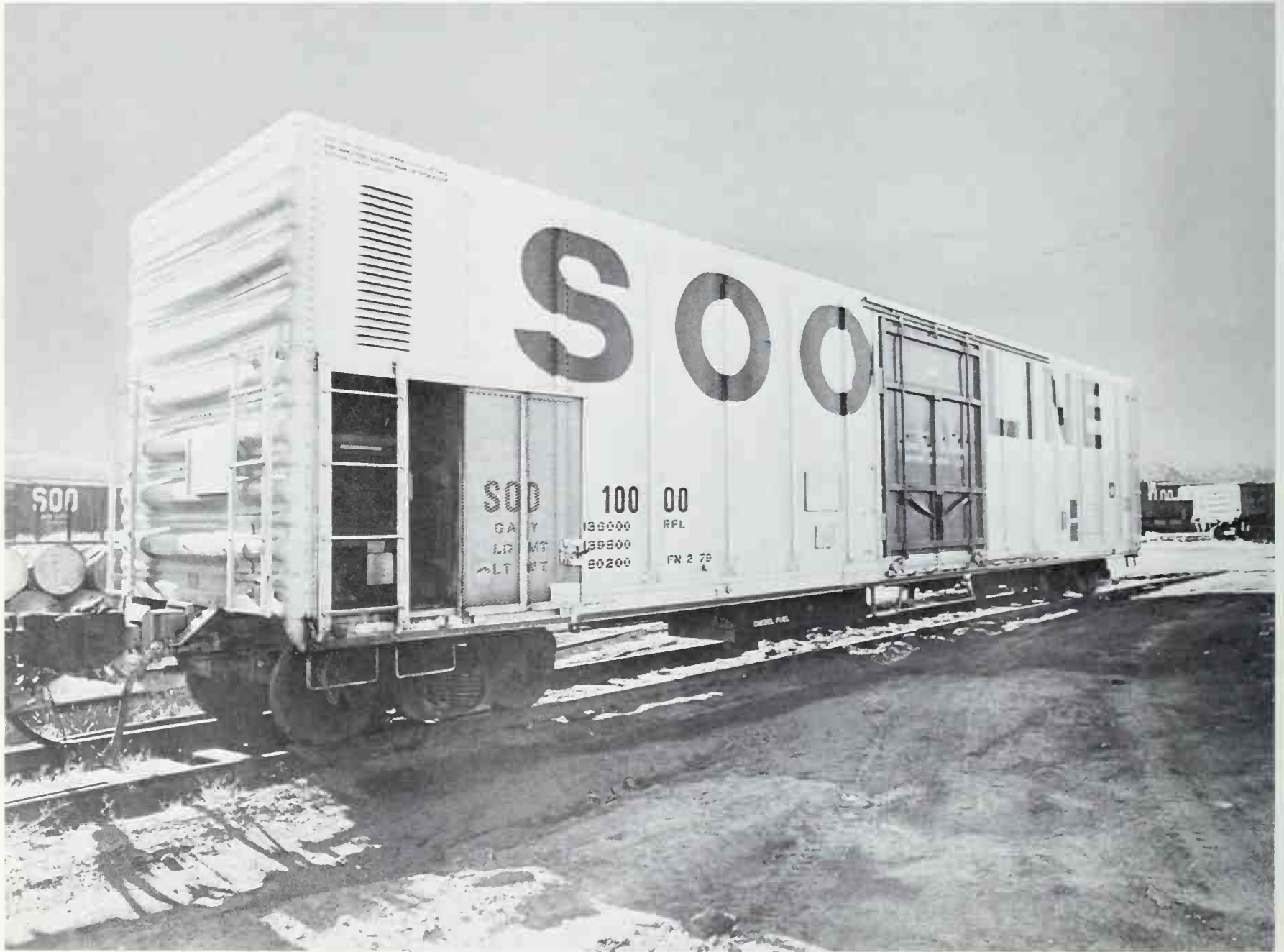


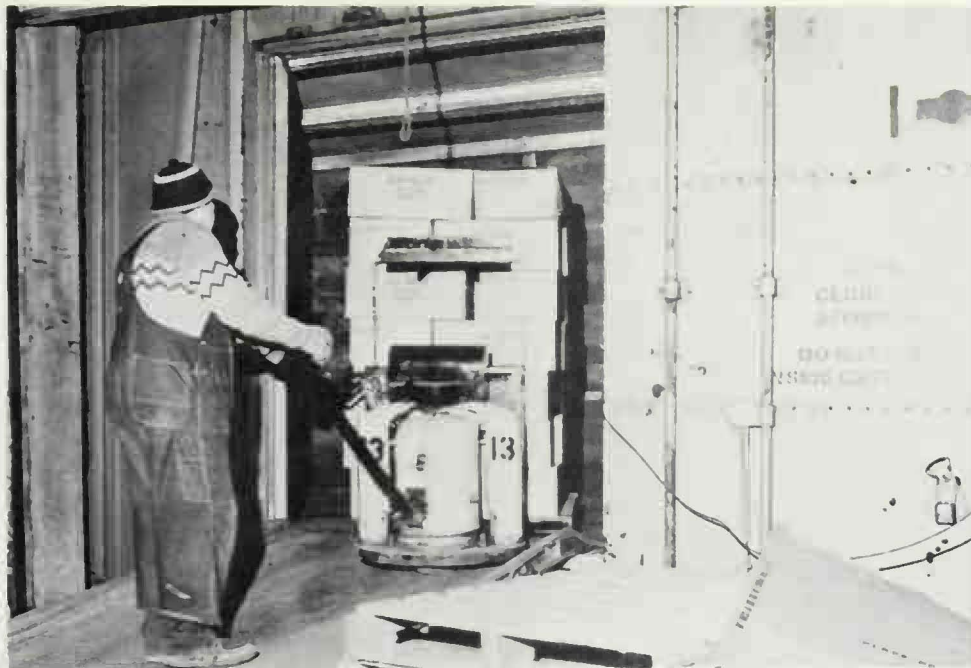
Some cars are loaded differently. This container will be lifted from its trailer by a gantry crane . . .



. . . and placed on a piggyback car.

# Refrigerator Cars





Unloading a refrigerator car



Insulated doors help keep the car cold inside.



The cooling unit



Refrigerator cars help keep food fresh.

# Special Equipment



This crane helps untangle and lift derailed cars.



A work machine inserting new ties



This is a snowplow.



Sawing old ties for removal



Lifting a motorcar

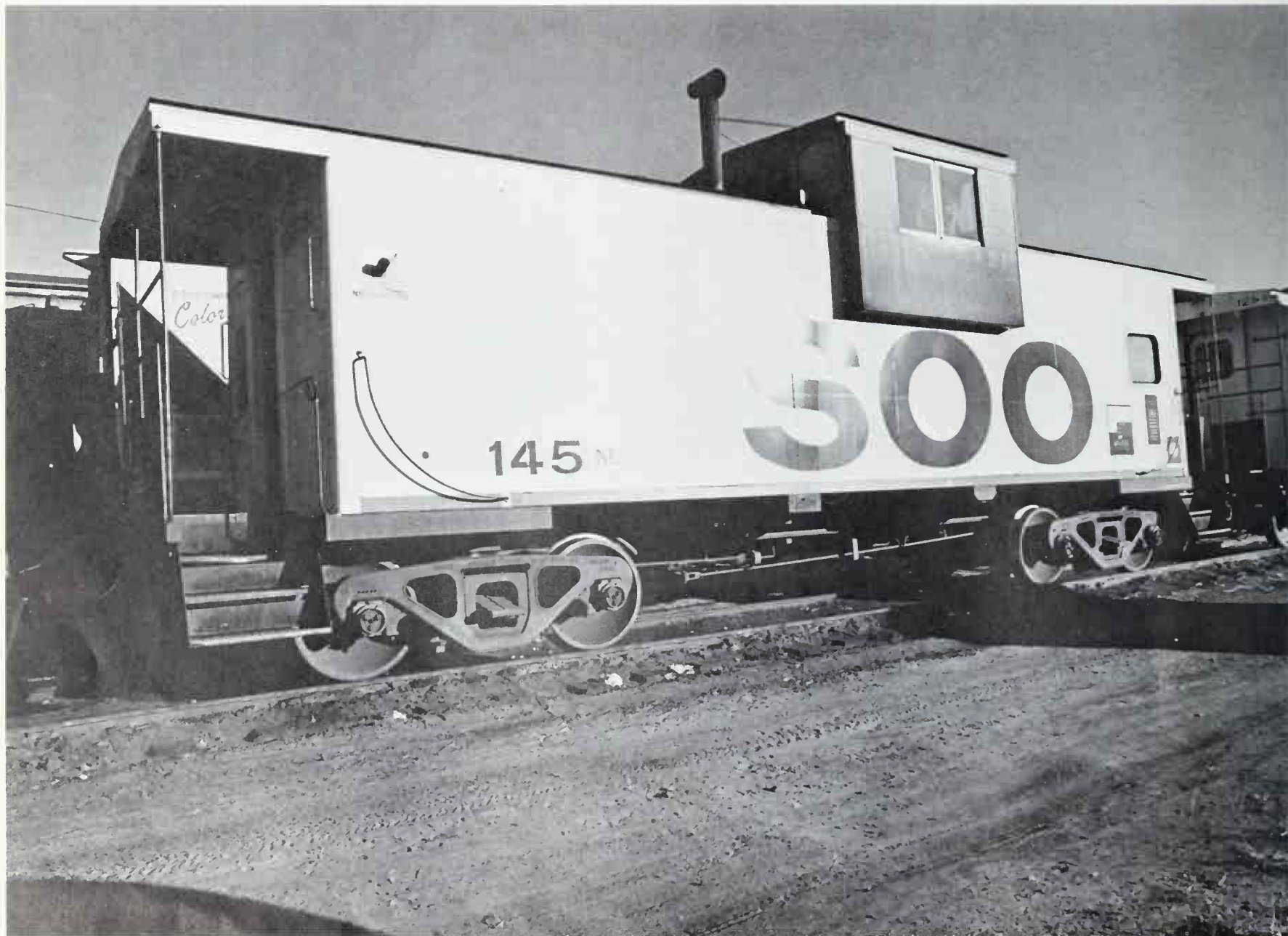


This crane may be used on or off the tracks.

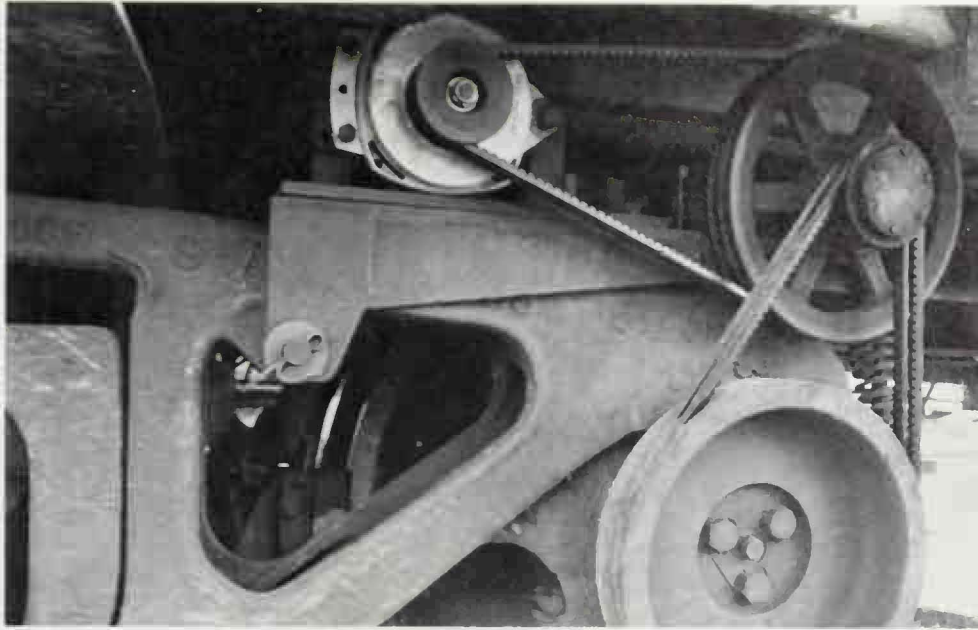


A Trackmobile for moving cars a short distance

# Cabooses



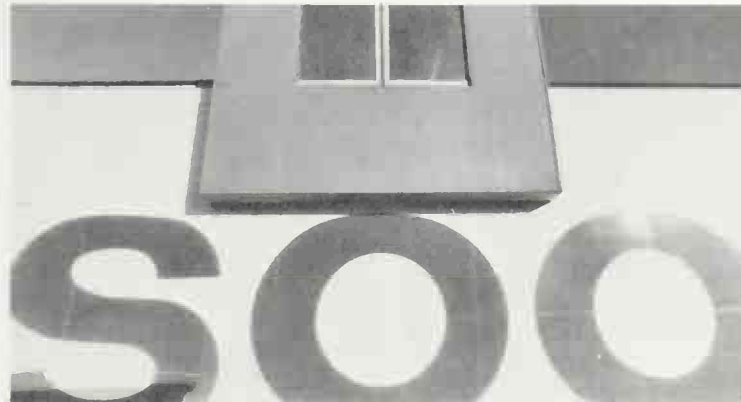
Conductors and brakemen ride in cabooses.



When the caboose wheels are moving, they turn these wheels which operate a generator that provides electricity inside the caboose.



The chimney for the heat stove inside



The cupola is where the conductor and brakeman sit.



# Inside Caboosees





This brakeman is in the cupola.



Climbing up to the cupola



Chemicals are used to put out fires.



A radio is used to talk to the engineer.



Fixing the heat stove



The air release valve



Air pressure gauge for the air brakes

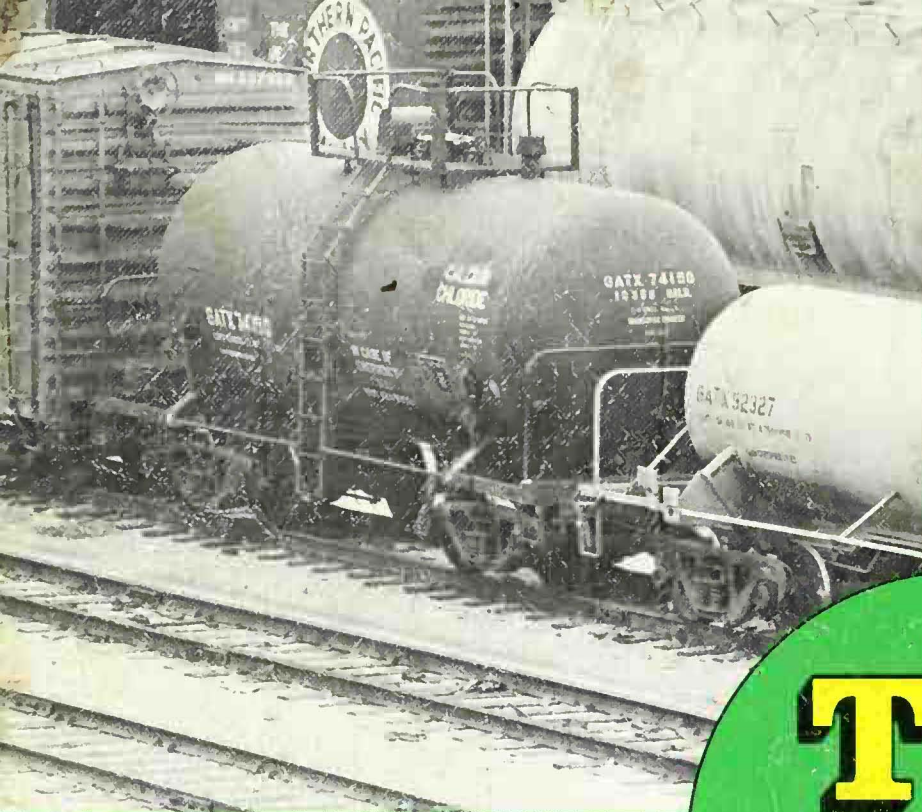


**The  
End**









# The End

