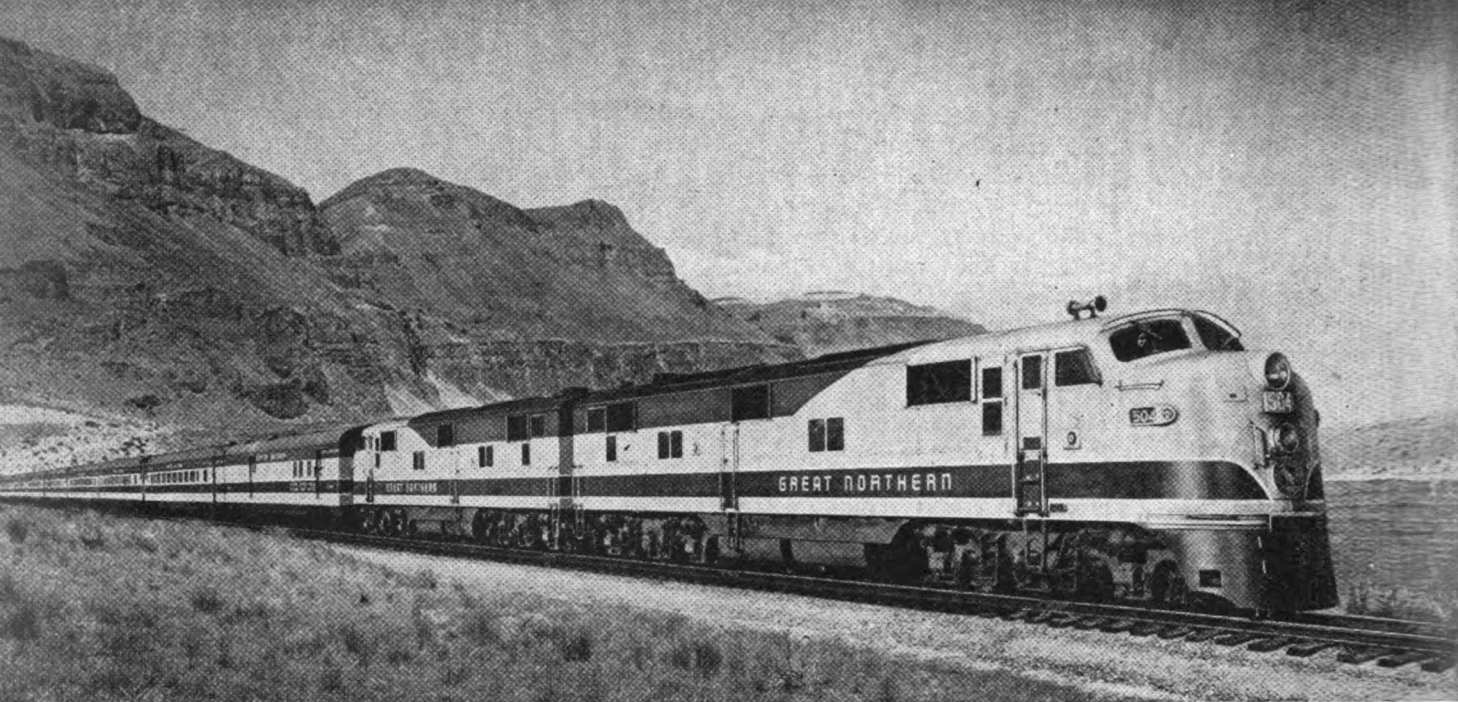


One of the new "Empire Builders" beside the Columbia river near Wenatchee, Wash.

RAILWAY AGE
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APRIL 12, 1947



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Great Northern Gets First Postwar

THE nation's first de luxe postwar-built transcontinental streamliners, the new "Empire Builders" of the Great Northern and the Chicago, Burlington & Quincy, were placed in regular daily service between Chicago and Seattle-Portland on February 23, as announced in a news forecast in the *Railway Age* issue of February 1. This spectacular new equipment, purchased at a cost of about \$7,000,000, includes five 12-car trains drawn by 4,000-hp. Diesel locomotives, four of these trains being owned by the Great Northern and the fifth by the Burlington, which operates the trains between Chicago and St. Paul, Minn. The over-all run of 2,211 miles between Chicago and the Pacific Coast cities is made in 45 hr., or 13½ hr. less than the previous scheduled running time over the northern route.

These trains, the first to be ordered by any railroad in anticipation of the postwar period (November 4, 1943), were built by the Pullman-Standard Car Manufacturing Company. They include the first postwar-designed coaches for transcontinental service and the first sleeping cars built and delivered to any railroad since V-J Day. Each train consists of a baggage-mail car, one 60-seat coach, three 48-seat coaches, a coffee-shop car, dining car, four sleeping cars, and an observation-lounge car, having a total passenger-carrying capacity of 307. The five two-unit 4,000-hp. Diesel locomotives were built by the Electro-Motive Division, General Motors Corporation.

Many unusual features, built into the

		"Empire Builder" Schedule			
		Chicago-Seattle		45	hr.
		St. Paul-Seattle		38	hr.
		Chicago-St. Paul		6¾	hr.
Westbound schedule (Read down)	Miles from Chicago	Stations (Central time)	Eastbound schedule (Read up)		
lv. 1:00 p.m.	0	Chicago, Ill.	ar. 2:00 p.m.		
3:55 p.m.	186	Dubuque, Iowa	10:48 a.m.		
5:25 p.m.	297	La Crosse, Wis.	9:15 a.m.		
7:45 p.m.	427	St. Paul, Minn.	7:15 a.m.		
lv. 8:00 p.m.	438	Minneapolis, Minn.	ar. 7:00 a.m.		
10:30 p.m.	529	Willmar, Minn.	6:30 a.m.		
11:57 p.m.	642	Breckenridge, Minn.	4:46 a.m.		
1:00 a.m.	688	Fargo, N. D.	3:00 a.m.		
3:02 a.m.	812	New Rockford, N. D.	1:55 a.m.		
4:55 a.m.	921	Minot, N. D.	11:48 p.m.		
7:20 a.m.	1,041	Williston, N. D.	10:10 p.m.		
		(Mountain time)	lv. 7:40 p.m.		
lv. 6:20 a.m.	1,041	Williston, N. D.	ar. 6:40 p.m.		
(a) 9:10 a.m.	1,198	Glasgow, Mont.	(b) 3:45 p.m.		
12:05 p.m.	1,351	Hayre, Mont.	12:55 p.m.		
2:10 p.m.	1,455	Shelby, Mont.	10:45 a.m.		
(c) 2:45 p.m.	1,480	Cut Bank, Mont.	(d) 10:17 a.m.		
6:13 p.m.	1,607	Whitefish, Mont.	6:55 a.m.		
9:15 p.m.	1,741	Troy, Mont.	3:55 a.m.		
		(Pacific time)			
lv. 8:15 p.m.	1,741	Troy, Mont.	ar. 2:55 a.m.		
ar. 11:30 p.m.	1,881	Spokane, Wash.	lv. 11:30 p.m.		
lv. 12:01 a.m.			ar. 11:00 p.m.		
2:17 a.m.	2,003	Ephrata, Wash.	8:38 p.m.		
3:30 a.m.	2,055	Wenatchee, Wash.	7:30 p.m.		
5:55 a.m.	2,126	Skykomish, Wash.	5:15 p.m.		
7:10 a.m.	2,178	Everett, Wash.	3:58 p.m.		
ar. 8:00 a.m.	2,211	Seattle, Wash.	lv. 3:00 p.m.		

(a) Stops to discharge revenue passengers from Fargo and east and to receive revenue passengers for Spokane and west.

(b) Stops to discharge revenue passengers from Spokane and west and to receive passengers for Fargo and east.

(c) Stops to discharge revenue passengers from Williston and east and to receive revenue passengers for Spokane and west.

(d) Stops to discharge revenue passengers from Spokane and west and to receive revenue passengers for Williston and east.

new "Empire Builders," are well adapted to increase the prestige and popularity of this well-known train. Among such features, the following may be mentioned:

The sleeping cars are the first to utilize the duplex roomette, with the exception of one experimental car built by Pullman-Standard before the war and thoroughly tested in wartime service.

Five 12-car trains, powered with Electro-Motive Diesels and having cars built by Pullman-Standard, have reduced running time between Chicago and Seattle, Wash., 13½ hr.

Transcontinental Streamliners

Three types of sleeping accommodations are afforded in one car. Two cars in each train carry four open sections, eight single-occupancy duplex roomettes, and four bedrooms.

In addition to conventional running hot and cold water, these sleepers are the first to have ice water on tap in all rooms, eliminating the water carafes previously used.

Stainless-steel kitchens in the dining cars are each equipped with a deep-freeze unit and automatic dish washer.

Bedrooms in the sleepers are the first to have the wardrobe at the aisle side for hanging clothing.

Electrically controlled brakes, combined with a brake-shoe controller, give graduated maximum braking ratio at all speeds and eliminate wheel sliding.

The folding vestibule steps are equipped with lights at foot level for a clear view of the steps at night.

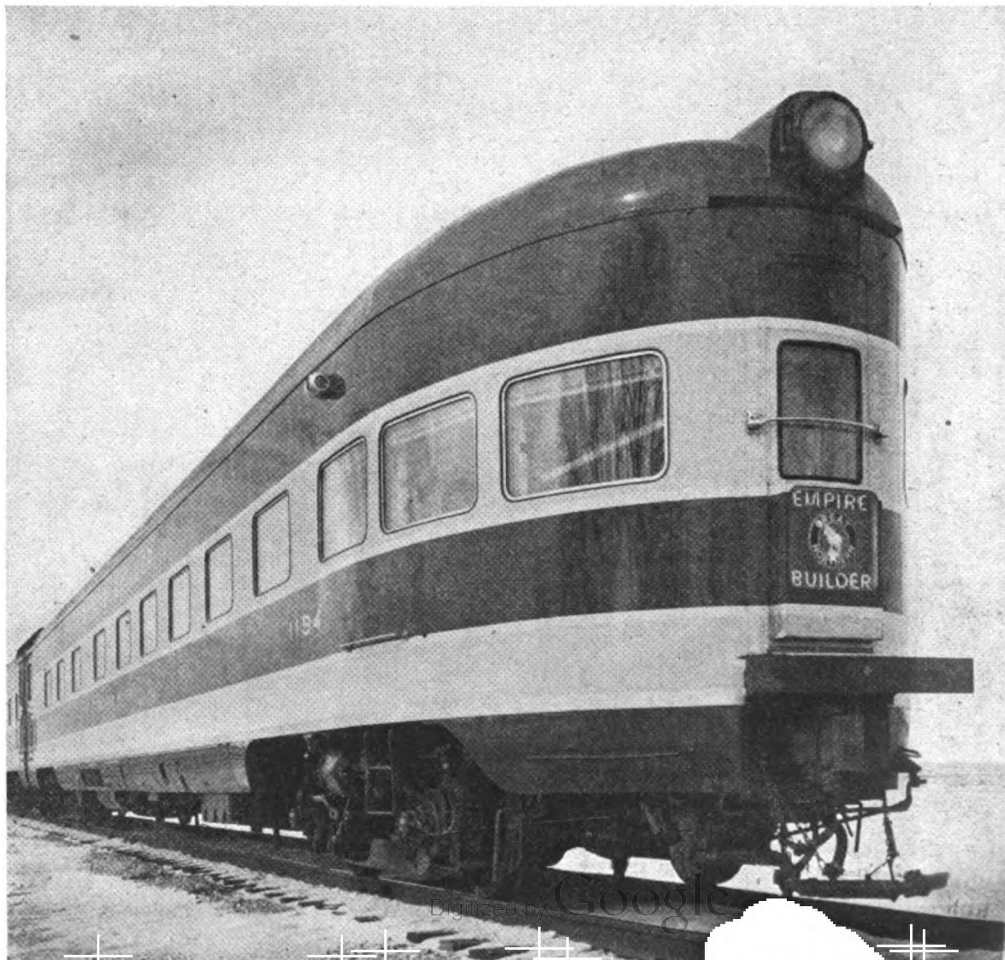
A red Mars light on the rear of each train automatically lights up and oscillates in a figure-eight light pattern whenever train speed is reduced below 20 m.p.h. This emergency warning, once activated, remains in operation until the train speed again exceeds 20 m.p.h. Locomotives also are equipped with Mars red and white oscillating lights.

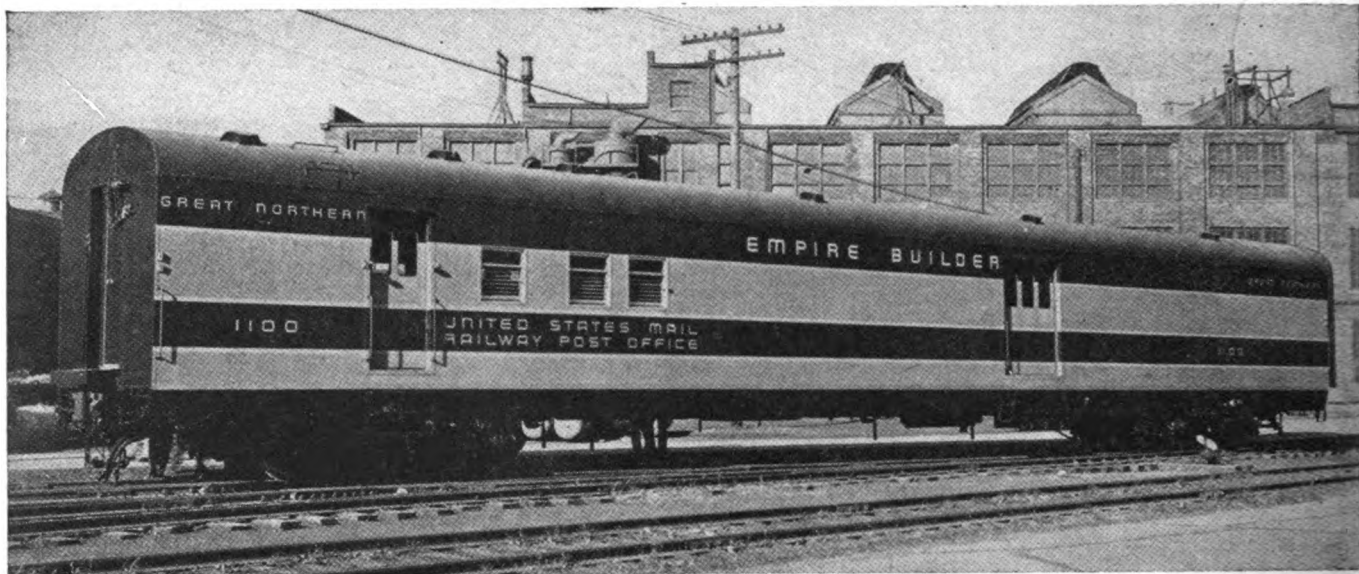
A master radio system, with speakers in all cars except the sleepers, becomes, by turning a switch, a public address system which passenger representatives and conductors can use to broadcast announcements to passengers throughout the train from a desk in the first

coach. Train and locomotive crews also can communicate over a telephone between the cab and the first coach.

The Day-Nite coaches contain Hey-

wood-Wakefield chaise-lounge reclining seats with Pullman-Standard designed leg rests which fold down from the back of the seat ahead, giving added





Above—The mail-baggage car

comfort and reclining position when desired.

All cars have four-wheel trucks fitted with Timken roller-bearing journals.

The exterior color scheme is a striking combination of alternate broad bands of brilliant olive green and deep orange which not only "trade mark" the trains but can be easily seen at a distance and, hence, provide an additional safety factor in high-speed operation. The roof and letter board, to just above the windows, are of olive green; the window band is deep orange running the length of the car; and just below the windows is a broad band of olive green. Another band of deep orange finishes off the bottom of the sides, and the car skirts are of olive green. Striping and lettering are in synthetic gold and aluminum.

At the head end of each of the new "Empire Builders" is an Electro-Motive two-unit, 4,000-hp. Diesel locomotive

which is designed for a maximum speed of 92 miles an hour, but does more to maintain high average speeds by reducing the number and length of stops for fuel and servicing and also accelerating trains more rapidly. This locomotive is 142 ft. long and weighs 637,660 lb.

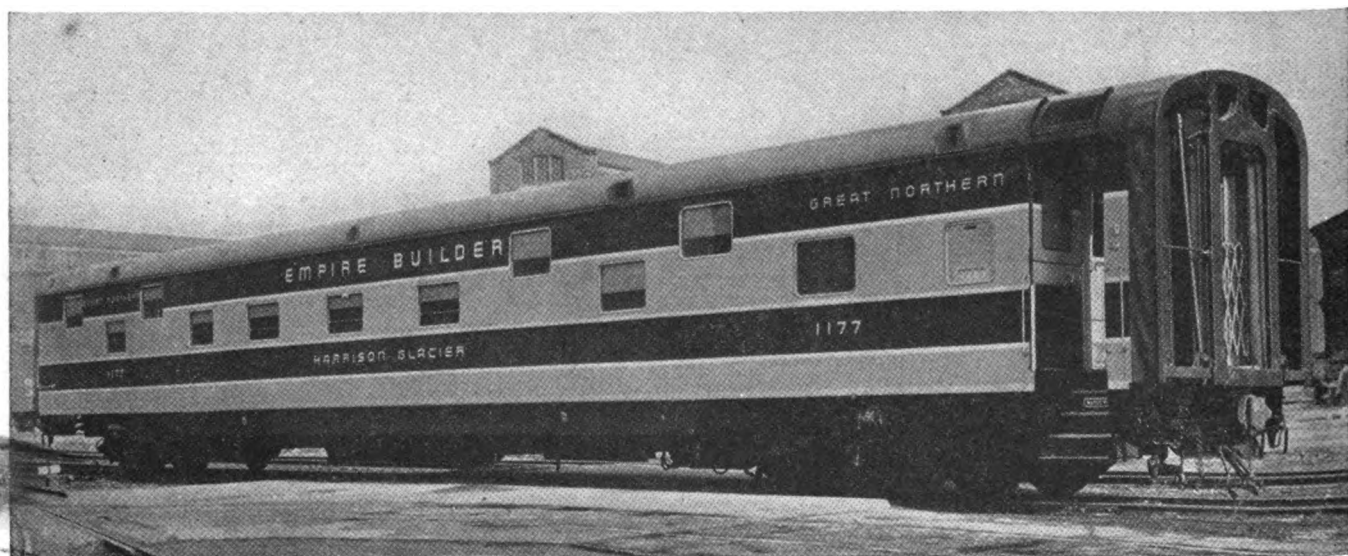
Individual cars in the trains are 85 ft. long between coupler pulling faces and have vestibules at one end only, except the baggage, coffee-shop and dining cars which have no vestibule entrances. In general, coaches are coupled with the vestibule ends, in which men's lounge rooms are located, adjoining. Similarly, two non-vestibule ends with women's rooms are placed together for greater convenience in case one room becomes crowded and passengers want to move to the other.

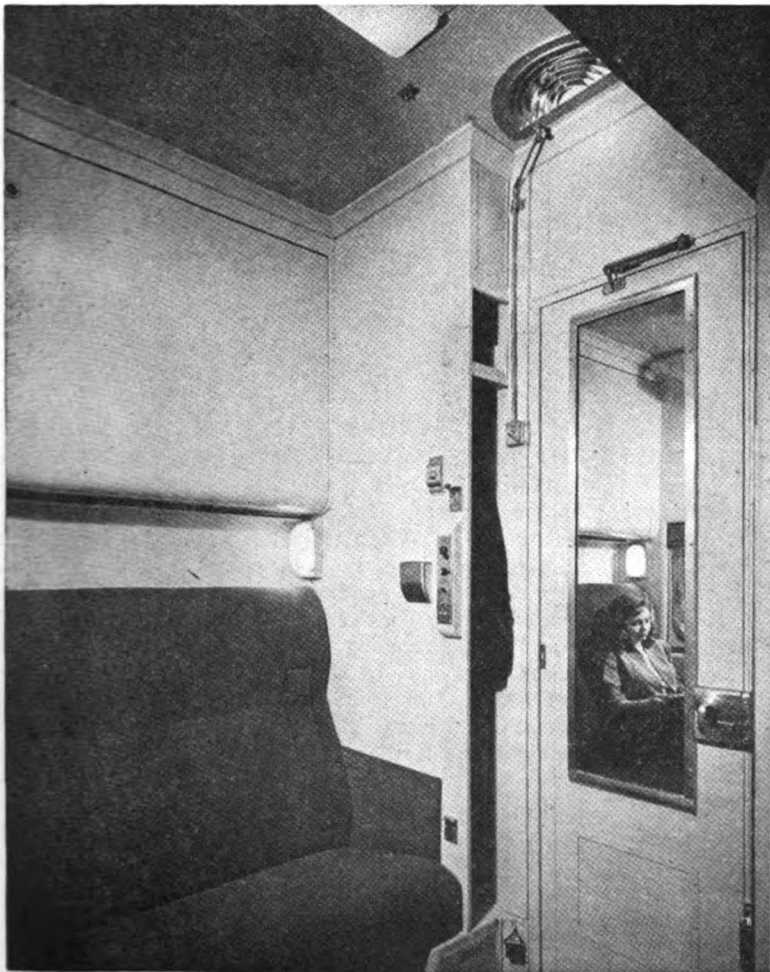
The coffee-shop car and adjoining diner are located in the middle of the train, with four coaches ahead and

Facing page (top)—Interior appointments in Day-Nite coach—Seat back raised (left), and lowered for foot and leg rest (right)

Facing page (bottom)—The bedroom has a wardrobe at the end of the sofa (left)—Meals can be served in a duplex-roomette (right)

Below—Window arrangement of one of the duplex-roomette sleepers

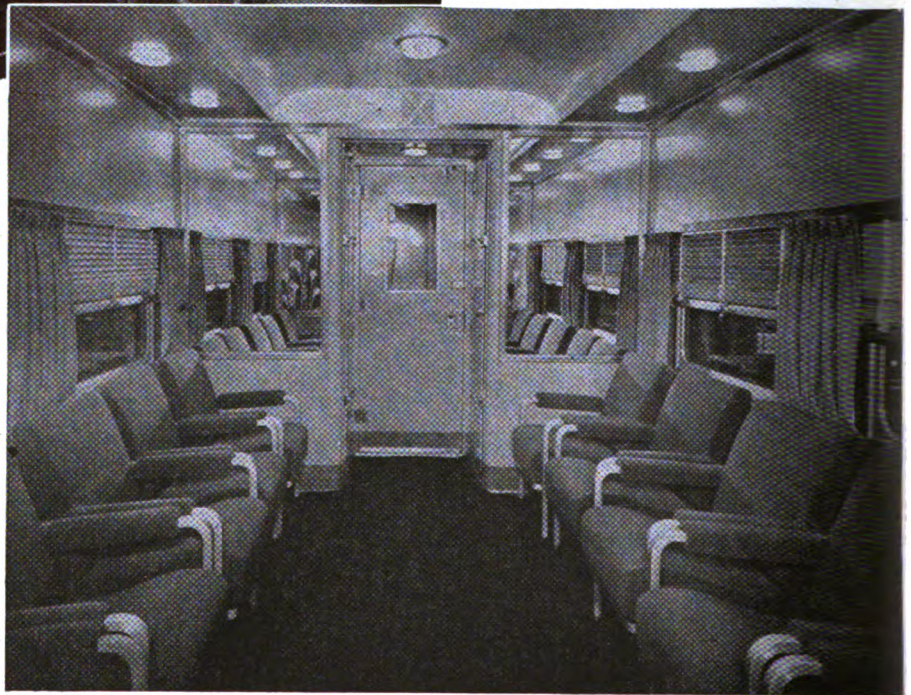






Lounge and lunch counter in the coffee-shop car

Below—The lounge in the coffee-shop car seats ten



four sleeping cars and the observation-lounge at the rear. The coffee-shop car is in reality a lounge-lunch-dormitory car with lounge seats for 10, lunch-counter stools for 10, and a dormitory section with accommodations for a 20-man crew. The diner is equipped with a modern stainless-steel kitchen and pantry and has a dining section with room to seat 36 persons.

The four sleeping cars behind the diner have accommodations for 24 passengers each. The first two are arranged with four double sections, eight duplex roomettes and four bedrooms; the next two have 16 duplex roomettes and four bedrooms, each. The observation-lounge also has two bedrooms, and a drawing room accommodating seven, and an observation lounge, seating 27.

Indigenous Colors Used

Passengers will find the new "Empire Builders" especially interesting from a color and decorative standpoint. The Great Northern worked long and closely with Ralph Haman, Pullman-Standard's engineer of color and design, in developing a decorative treatment characteristic of the Northwest country through which the trains operate. Glacier National Park, which is served by the Great Northern was the inspiration for most of the colors used, the lakes, trees, flowers and foliage suggesting the special blues, greens, yellows and reddish browns incorporated in color schemes of the various cars.

One of the most dramatic cars is the diner, in which color and design experts have built into the panels between the tables facsimiles of wild flowers which

grow abundantly in Glacier Park. The entire diner is done in blues which match the Walter Loos photographic flower reproductions. The use of copper for the metal trim of the diner also gives an authentic Montana touch.

The color theme and design of the observation car is exclusive and distinctive to the territory served, for here tribute is paid to the Blackfoot Indian tribe of northwestern Montana. Some of the finest Winold Reiss paintings set the motif of the observation car. Draperies in the car are exact duplicates of the famous Hudson's Bay blankets, and flooring, seats and wall coverings have been keyed into the general motif. To bring action into the car and follow the pioneer theme, a series of water colors, painted by the

late Charles M. Russell, a Montana cowboy, are reproduced photographically and placed on the bulkheads.

Coaches in the five trains have been done in color tones of blue, green, yellow and brown, with the stronger colors used below the windows and receding to lighter shades at eye level and on the ceilings. Flesh- and gold-tone mirrors and murals of scenes taken along the Great Northern right-of-way further accentuate the beauty of the coaches. Five coaches use the flesh- and gold-tone mirrors, 10 the photographic murals, and five famous Great Northern lithographs.

Indian picture writing is used as the decorative theme in the coffee-shop car. Here, too, the passenger finds the Hudson's Bay colors woven into the

counter covering, and color combinations follow the authentic styling of the other cars. Sleeping cars also follow the general color scheme, featuring shades of tan, apricot, greens, grays and yellows.

To link the "Empire Builders" still further with the country through which they operate special names have been selected for individual cars. For example, the coffee-shop and dining cars have been named for lakes such as Two Medicine, Red Eagle, McDonald and Chelan. The sleepers are named for famous passes like Logan, Triple Divide, Lincoln and Cut Bank, and Glaciers like Oberlin, Sexton, Harrison and Sperry. Observation cars are named for rivers, including the Mississippi, Missouri, Flathead, Kootenai and Marias.

All of the new "Empire Builder" cars embody Pullman-Standard welded girder-type construction, utilizing low-alloy, high-strength steel for underframes, sides, ends and roofs and meet-

ing A. A. R. strength requirements. Substantial weight savings without sacrifice of strength have been effected, the average car weights varying from 112,300 lb. for the mail-baggage car to

section with two web plates and top and bottom cover plates. The buffer beams are built-up welded construction. End frames are designed to suit either the wide-type vestibule, dummy end, or

Average Weights and Capacities of the "Empire Builder" Cars

Type of car	Plan number	Seating capacity	Sleeping capacity	Journal size, in.	Weight, lb.*
Mail-baggage	7494	6 × 11	112,300
Coach	7495	60	..	5½ × 10	119,500
Coach	7496	48	..	5½ × 10	119,500
Coach	7497	48	..	5½ × 10	119,500
Lounge-lunch-dormitory	7498	20	20†	6 × 11	128,500
Diner	7499	36	..	6 × 11	130,000
Sleeping	4107	..	24	6 × 11	133,200
Sleeping	4108	..	24	6 × 11	137,700
Sleep.-observ.-lounge	4109	27	7	5½ × 10	123,400

* Less water and live load.

† For diner and coffee-shop crews.

137,700 lb. for one of the sleepers, as shown in the table. The car body bolsters are built-up, arc-welded, box-

rounded observation end, as called for by individual floor plans. Roof construction is of the turtle-back type, continuous from end to end of the car. Draft gears are of the Waugh twin-six type and National tightlock Type-H couplers. Buffers are designed with side stems and coil springs of sufficient capacity to keep buffers in out position.

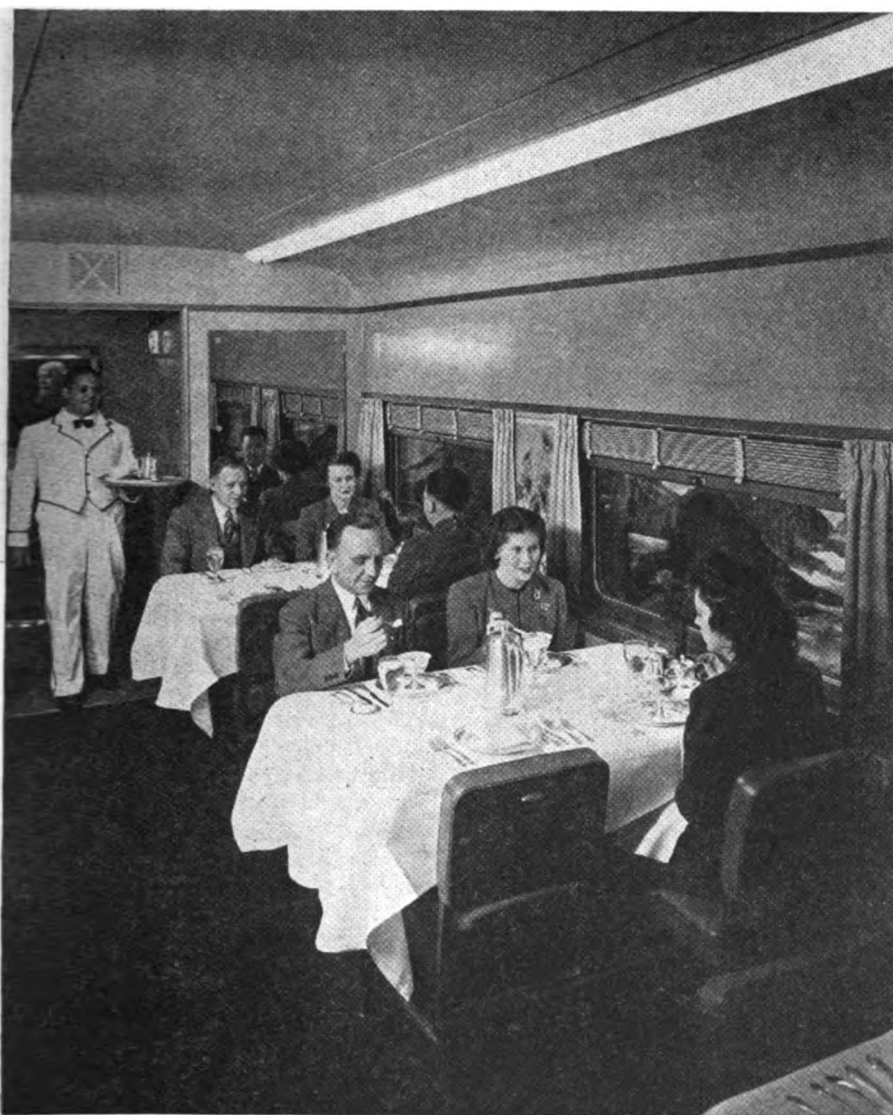
At all vestibules, Pullman-Standard pivoted four-tread steps are installed on each side of the platform and operated in conjunction with the trap doors. Vestibule diaphragms have center and outer closures and center-stem suspension with a vertical support rod on each side. The face plate is made of wear-resisting alloy steel. Outer diaphragms are of rubber.

The insulation in three of the trains is Stonefelt and in two trains, Fiberglas. This insulation is 3 in. thick in the floors, ends and roofs and 2½ in. in the sides to give adequate control of interior car temperatures without excessive demands on air heating or cooling equipment.

Interior finish consists of Tempered Presdwood for the wainscoting of open sections, passageways and toilet. Aluminum wainscoting is used in all rooms, in the observation lounge, and for pier panels, end finish, and the ceiling in open sections. The ceiling in bedrooms, compartments, and drawing rooms is of Presdwood, except that aluminum is applied where short-radius surface curves require the use of metal. Stainless steel .030 in. thick is shaped to the contour of the carlines in the buffet.

Heating and Air-Conditioning

All cars have the Vapor zone-control heat equipment which maintains temperatures in the various car sections, compartments, rooms and lounges as determined by the setting of individual

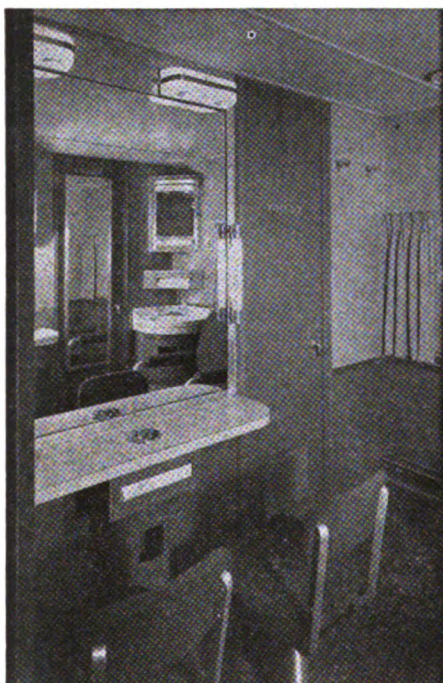


The diner seats 36 persons



Above—The observation lounge

Below—Coach toilet facilities—women's room, left, and men's room, right



thermostat controls. Floor heat is supplied from Vapor fin-type radiation units. In the coaches, coffee-shop and dining cars Vapor automatic control panels are used. In the sleepers the control panels are Vapor selective type. The main steam trainline is Electrunite drawn-steel tubing, of 2 $\frac{3}{8}$ in. outside diameter, with welded joints. Baker

heaters with an auxiliary heating system are installed in the baggage car and all coaches for emergency heating.

The air-conditioning equipment is of the electro-mechanical type of eight tons capacity, using Freon F-12 refrigerant. It includes a Frigidaire compressor-motor unit with Frigidaire controls and evaporator, and a Trane evaporative

condenser. Provision is made for a deodorizer in the recirculating air chamber of the Dorex G-3 type. Air ducts from the overhead unit along the ceiling center line include aluminum and Presdwood construction using parts of the car interior wherever practicable. Air outlets in all sleeping rooms are of the Anemostat diffuser type. In the coaches, coffee-shop, diner and observation cars the underside of the air duct consists of Pyle-National Multi-vent perforated air-diffuser panels, hinged for cleaning. Filters are of the Midwest demountable type.

Air-brake equipment consists of the New York H. S. C. schedule with D-22 BR control valve, electro-pneumatic straight-air control and speed-control governor. The American Brake Shoe Controller, which prevents wheel sliding, is driven from a spline bushing on the end of the axle. All cars except the observation car have air-controlled sanding equipment to operate in conjunction with the controller. A vacuum cleaning connection box is supplied on each side of the car, accessible through the skirt. Hand brakes are of the National Brake Company's wheel type in the cars with vestibules and National Peacock pump-type on the cars without a vestibule. Provision is made at the observation end for back-up equipment, including an operating valve, warning horn and air gage in a small locker just above the floor level where it is normally concealed but readily available for use when needed.

Lighting Equipment

In the main seating compartments of the coaches, Luminator individual reading lights are installed in the overhead baggage racks. The single fixture is equipped with two lenses controlled by individual switches, one lens to supply reading light for the passenger on the window side and the other for the aisle passenger. The light beam pattern from the reading lights is designed so as to give the proper intensity at the reading plane of one passenger without overlapping the seat area of any of the passengers adjacent to, ahead of, or behind it.

The coach aisle lighting consists of nine magnifying-lens glass fixtures which project a narrow high-intensity beam of light the width of the aisle without extending into the seating area. This fixture also gives a soft light for the ceiling and upper portion of the car. At night the aisles are illuminated with 10-watt seat-pedestal lights. Vestibule and passageways are lighted with magnifying-lens glass fixtures.

In the lavatories and toilets of the coaches, similar magnifying-lens glass fixtures are also used. The mirror lighting consists of magnifying-lens

fixtures at the top of the mirrors. The women's dressing rooms contain large make-up mirrors with side lighting.

In the coffee-shop car the light fixtures are also of the magnifying-lens type.

In the diner, the main dining-room lighting consists of two rows of Safety continuous fluorescent ceiling troughs. Fifteen-watt incandescent night lights are incorporated in these troughs. The lobbies and the passageway of the diner are equipped with magnifying-lens incandescent lighting.

In the sleeping cars, main lighting of the passageways and the rooms consists of Safety fluorescent fixtures. The individual berth and reading lights are incandescent fixtures and all lights are equipped with incandescent blue night lights.

The observation lounge is illuminated by a Safety fluorescent trough which is continuous around the entire ceiling, including the curved end at the rear of the room. This fixture is so designed that, in addition to giving direct fluorescent lighting, it also gives indirect illumination to the center of the ceiling. The entire trough is equipped with white incandescent night lights.

Electric Power Supply

Electric power is supplied from a Safety 20-kw. 40-volt Genemotor with a built-in 25-hp. 220-volt a.c. motor which can be plugged in to furnish power for lights and air cooling when cars are at terminals. In normal operation on the road, the Genemotor is driven from one of the car axles by a Spicer Model 6-I gear unit. The motor alternator on each car equipped with fluorescent lights is a Safety two-kw. 32-volt d.c. to 110-volt a.c. machine. A converter is installed in each switchboard locker to supply 110-volt current for electric shavers.

The observation car carries a radio receiver, Pullman antenna, and public address amplifier, with its associated power and control equipment conveniently located in a locker. An eight-conductor shielded trainline and connectors carry the radio receiver and public address announcements through the train. Other electric connections are carried between cars by trainline jumpers with A. A. R. color code wires.

Trucks

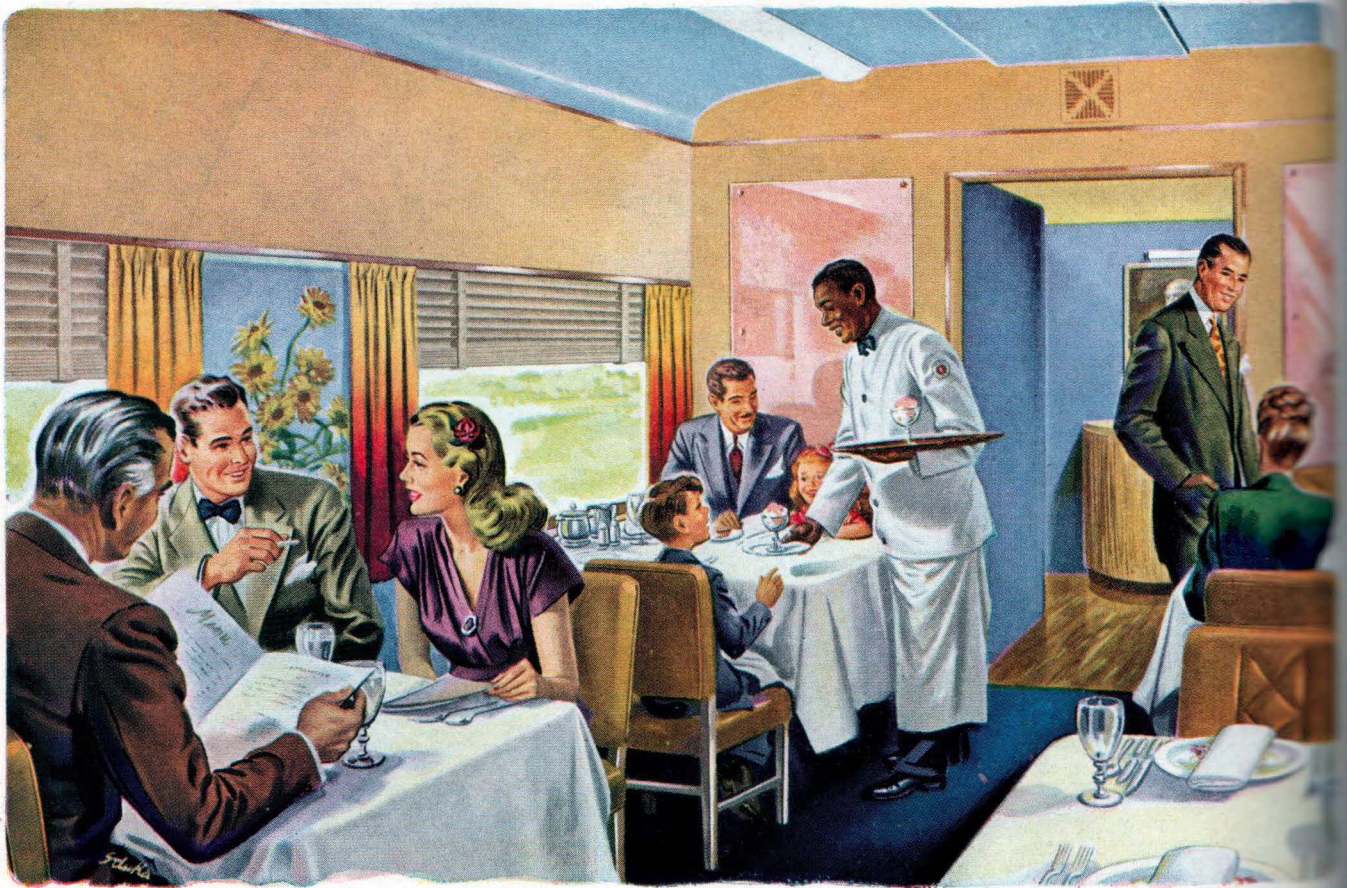
The trucks have an 8-ft. 6-in. wheel base and are of the four-wheel, single-bolster type with integral cast-truck frames of alloy steel, made by the General Steel Castings Corporation. The 36-in. steel wheels are mounted on normalized and tempered axles with

either 5½ in. by 10-in., or 6-in. by 11-in. journals and Timken roller bearings. Rubber-insulated bolster anchors are installed, eliminating the need for transom or bolster wear plates. Drews spring-type side bearings and Miner

4-in. three-piece safety center pins are used. The trucks are equipped with A. S. F. unit-cylinder clasp brakes, having two brake cylinders per truck, automatic slack adjusters and an anti-rattling device in the brake rigging.

Partial List of Materials and Equipment on the New "Empire Builder" Cars

Low-alloy high tensile steel	Carnegie-Illinois Steel Corp., Pittsburgh, Pa. Inland Steel Co., Chicago
Trucks:	
Truck frames	General Steel Castings Corp., Eddystone, Pa.
Roller bearings	Timken Roller Bearing Co., Canton, Ohio
Center pins	W. H. Miner, Inc., Chicago
Springs, side bearings and clasp brakes	American Steel Foundries, Chicago
Wheels	Edgewater Steel Co., Pittsburgh, Pa.
Axles	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Shock absorbers	Houde Engineering Div. of Houdaille-Hershey Corp., Detroit, Mich.
Brake shoes	American Brake Shoe Co., New York
Air brakes	New York Air Brake Co., New York
Wheel-slip controller	American Brake Shoe Co., New York
Hand-brakes	National Brake Co., New York
Draft gears	Waugh Equipment Co., New York
Couplers and yokes	National Malleable & Steel Castings Co., Cleveland, Ohio
Insulation:	
Fiberglass (2 trains)	Gustin Bacon Mfg. Co., Kansas City, Mo.
Stonofelt (3 trains)	Johns-Manville Sales Corp., New York
Floor composition	Tuco Products Corp., New York
Interior Finish:	
Aluminum	Aluminum Co. of America, Pittsburgh, Pa.
Tempered preswood	Masonite Corp., Chicago
Aluminum-covered plywood	Haskelite Mfg. Corp., Grand Rapids, Mich.
Steel	American Rolling Mill Co., Middletown, Ohio
Stainless steel for all pantries and kitchens	Allegheny Ludlum Steel Corp., Pittsburgh, Pa. United States Steel Corp., Pittsburgh, Pa.
Monel metal	International Nickel Co., New York
Window sash and fixtures	Adams & Westlake Co., Elkhart, Ind.
Polished plate glass:	
Sleepers	Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Other cars	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Prismatic plate glass	Pressed Prism Plate Glass Co., Morgantown, W. Va.
Paint:	
Exterior	E. I. du Pont de Nemours & Co., Wilmington, Del.
Interior	Pittsburgh Plate Glass Co., Pittsburgh, Pa. Sherwin Williams Co., Chicago
Leatherette wall covering, leather stool and diner chair covering	Blanchard Bros. & Lane, Newark, N. J. Goodall Fabrics, Inc., Chicago
Photo murals	Kaufmann Kabry, Chicago
Floor covering—carpets	Beck & Blatchford, Chicago Bigelow Sanford Carpet Co., New York Holmes Archibald & Son, Chicago
Rubber floor covering	Goodyear Tire & Rubber Co., Akron, Ohio
Coach seats	Heywood-Wakefield Co., Gardner, Mass.
Seat covering, coaches	Collins & Aikman Corp., New York
Observation chairs, carpets	Beck & Blatchford, Chicago
Chairs for dining cars	General Fireproofing Co., Youngstown, Ohio
Venetian blinds	Ajax-Consolidated Co., Chicago
Draperies	Goodall Fabrics, Inc., Chicago
Window curtains	Pantasote Corp. of N. J., New York
Window cappings	Formica Insulation Co., Cincinnati, Ohio
Water coolers:	
Ice-type (baggage mail cars)	Henry Giessel Co., Chicago
Electro-mechanical (coaches)	Cordley & Hayes, New York
Electro-mechanical (sleepers)	General Electric Co., Chicago
Washstands	Adams & Westlake Co., Elkhart, Ind.
Water closets—plumbing	Crane Co., Chicago Dumer Co., Chicago
Sanitary napkin dispensers	West Disinfecting Co., Long Island City, N. Y.
Fire extinguishers	Pyrene Mfg. Co., Newark, N. J.
Drinking-cup equipment	Logan Drinking Cup Div., U. S. Envelope Co., Worcester, Mass.
Heating equipment and controls	Vapor Car Heating Co., Chicago
Steam trainline	Steel & Tube Div., Republic Steel Corp., Cleveland, Ohio
Emergency hot-water heaters	Vapor Car Heating Co., Chicago
Air-conditioning equipment and refrigerating units	Frigidaire Division, General Motors Corp., Dayton, Ohio Trane Co., La Crosse, Wis.
Indicating lamps on air-conditioning controls	H. R. Kirkland Co., Norristown, N. J.
Air filter	American Air Filter Co., Louisville, Ky.
Air diffusers:	
Sleeping rooms	Anemostat Corp. of America, New York
Other cars	Pyle-National Co., Chicago
Radio and public address	R. C. A. Victor Div., Camden, N. J.
Lighting fixtures	Crouse Hinds Co., Syracuse, N. Y. H. R. Kirkland Co., Norristown, N. J. Luminator, Inc., Chicago
Batteries	Safety Car Heating & Lighting Co., New York Electric Storage Battery Co., Philadelphia, Pa. Gould Storage Battery Corp., Depew, N. Y. Pyle-National Company, Chicago
Battery-charging receptacles	Westinghouse Electric Corp., Pittsburgh, Pa.
Circuit breakers and circulating fans	
Everdur battery-box floors and hopper tubes	American Brass Co., Waterbury, Conn.
Intake blower fans	B. F. Sturtevant Co., Boston, Mass.
Motor alternator, a.c.-d.c., exhaust fans	Safety Car Heating & Lighting Co., New York
Generators and controls	Safety Car Heating & Lighting Co., New York
Generator drive	Spicer Manufacturing Corp., Toledo, Ohio
Air compressor and other V-belt drives	Dayton Rubber Manufacturing Co., Dayton, Ohio
Headlights and marker lights	Pyle-National Co., Chicago
Tail lights	Mars Signal Light Co., Chicago



the *New* Empire Builder — a very nice way to travel

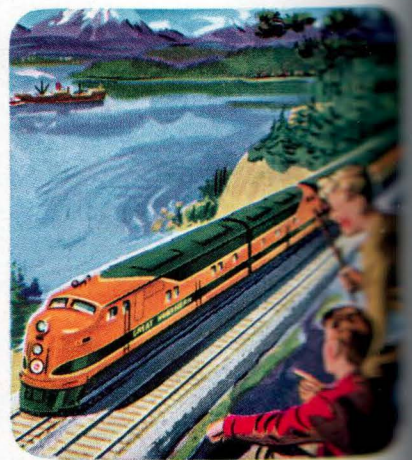
You'll find many attractive features to enjoy on Great Northern's *New* EMPIRE BUILDERS—the first fleet of sleeping car-coach trains built since the war . . .

Charming, modern dining cars serving distinctive food. New style Day-Nite coaches. Colorful coffee shops. New design duplex roomettes. Improved bedrooms and drawing rooms. Pleasant observation lounges. More luxury and more comfort in every type of accommodation.

The *New* EMPIRE BUILDERS slash one whole night from the schedule of their famous predecessors between Chicago and Pacific Northwest.



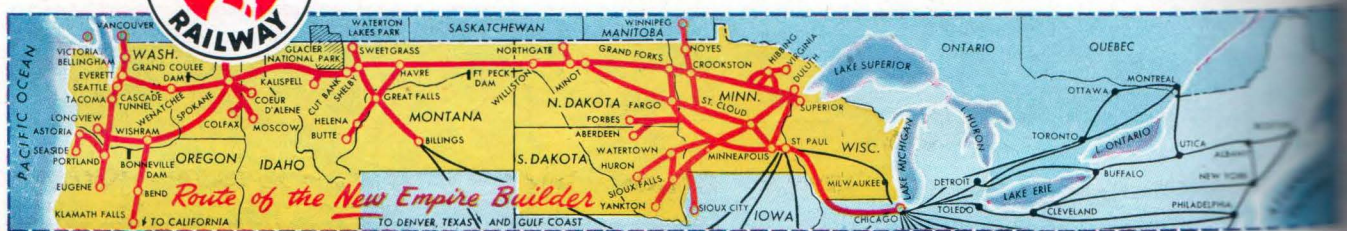
New, improved bedrooms give you the finest accommodation for restful, refreshing travel.



Along Puget Sound. Dependable diesel power cuts travel time, increases travel comfort.



Serves the Best of the Great Northwest





the *New* Empire Builder

custom-built for pleasant, faster travel

A new generation of a long-distinguished fleet of transcontinental trains—Great Northern's *New EMPIRE BUILDERS*. The *first* modern, sleeping car-coach trains built since the war, the *New EMPIRE BUILDERS* inaugurate the *first* streamliner service between Chicago and the Pacific Northwest on a daily 45-hour schedule. These sleek, colorful, diesel-drawn trains are custom-built for comfortable, refreshing travel. New style coaches . . . duplex roomettes . . . spacious bedrooms . . . cheerful lounges . . . gay coffee shops . . . and charming dining cars with Great Northern's famous food service. The *New EMPIRE BUILDERS*—modern trains designed for modern travelers.



New design duplex roomettes . . . ideal for the passenger who desires complete privacy and comfort.



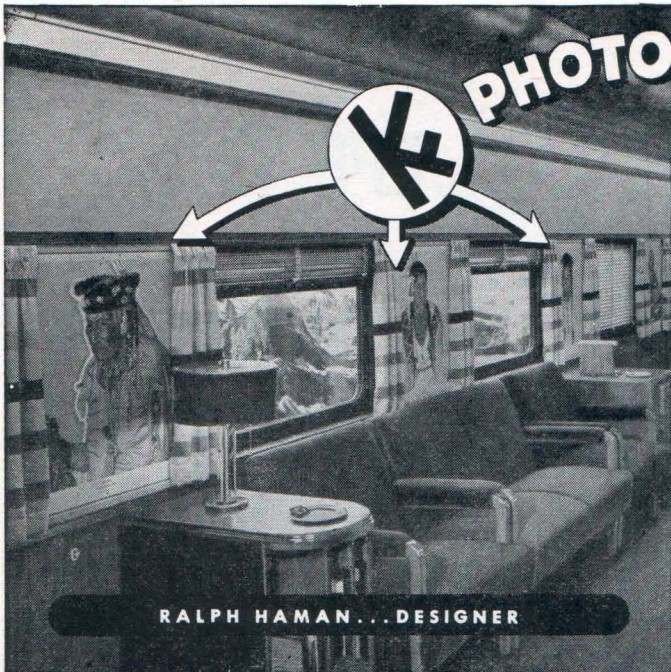
New style Day-Nite coaches . . . more room for each passenger, more comfort and convenience.



Serves the Best of the Great Northwest



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ON THE
New Empire Builder

Solemn, stoic and dignified members of the Blackfeet Tribe gaze upon the modern splendor of the new streamline marvel of the rails... The Empire Builder.

The portraits, painted by Winold Reiss, were duplicated in full color, by the photomural process, with such fidelity that only the artist could differentiate between his creations and K&F Photomurals.

In selecting photomurals for this latest product of Pullman-Standard, Ralph Haman, the designer, recognizes that this medium is always individual... always flexible and always in keeping with the decorative plan.

Our new brochure, "Make Blank Walls Live" illustrates in color a comprehensive treatise on photomurals... a copy is yours for the asking.

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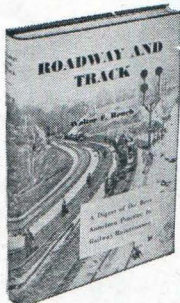
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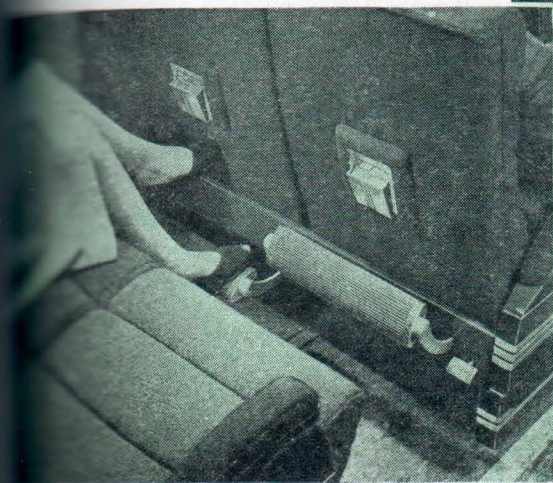
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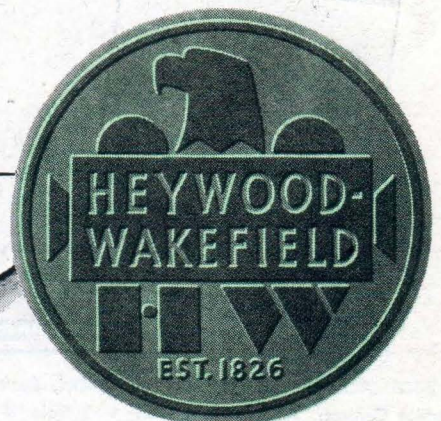
Patrons of the **New EMPIRE BUILDER** Travel in "Sleepy Hollow" Comfort

Obvious goal of current modernization programs is to deliver satisfied, enthusiastic patrons *at the end of the trip*. That's a fundamental reason why so many newly modernized trains—like the New Empire Builder—are equipped with Heywood-Wakefield seating throughout. These fine new seats are not only designed for comfort—they *deliver* thorough going comfort in full measure!



Heywood-Wakefield Seat No. 820—The adjustable, rubber-covered footrest is only one of the many details which add to the comfort of Heywood-Wakefield seats. Model No. 820 is one of two "Sleepy Hollow" models selected by Great Northern Railway for all coaches of the New Empire Builder currently being placed in service.

Details of color, finish and upholstery fabric, of course, can be worked out to harmonize with the decorative treatment of your own new equipment just as they were in the case of the New Empire Builder.



**TRANSPORTATION SEATING DIVISION
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