



By 1883 several railroads crossed the West. The transcontinentals shipped settlers and goods there and hauled out raw resources.

Trains could carry passengers from New York City to San Francisco in less than 10 days.

The refrigerated railroad car in the 1870s allowed fresh meat and produce to be transported all over the nation.

— Railroads
 X Mining centers



Geography Skills

By the 1890s more than 150,000 miles (241,350 km) of tracks had been laid.

1. **Identifying** Which railroad connected Los Angeles to New Orleans?
2. **Analyzing Information** Which railroads would a traveler use from St. Louis to Virginia City?

connect with other lines. The gaps in service between the various lines made long-distance railroad travel slow and inefficient.

As the railroad companies consolidated, railroad barons saw the advantages of being part of a national railroad network. During the late 1880s, almost all companies adopted a **standard gauge** of 4 feet, 8.5 inches as the width of the railroad track. A standard gauge allowed faster shipment of goods at a reduced cost. It was no

longer necessary to load and unload goods from one train to another. One train could make the entire journey.

Railroad Technology

Railway transportation also improved with the introduction of new technology. Four developments were particularly important. Inventor **George Westinghouse** devised air brakes that improved the system for stopping trains, making train travel safer. Janney car couplers, named after inventor **Eli H. Janney**, made it easier for railroad workers to link cars. Refrigerated cars, developed by **Gustavus Swift**, enabled the railroads to ship meat and other perishable goods over long distances. Finally, **George M. Pullman** developed the Pullman sleeping car—