

# Industrial Revolution - Changes in transport

At the beginning of the Industrial Revolution, inland transport was by navigable rivers and roads, with coastal vessels employed to move heavy goods by sea. Railways or wagon ways were used for conveying coal to rivers for further shipment, but canals had not yet been constructed. Animals supplied all of the motive power on land, with sails providing the motive power on the sea.

The Industrial Revolution improved Britain's transport infrastructure with a turnpike road network, a canal and waterway network, and a railway network. Raw materials and finished products could be moved more quickly and cheaply than before. Improved transportation also allowed new ideas to spread quickly.

## **Coastal sail**

Sailing vessels had long been used for moving goods round the coasts. The trade transporting coal had begun in medieval times. The transport of goods coastwise by sea was common during the Industrial Revolution, as for centuries before. This became less important with the growth of the railways at the end of the period.

## **Canals**

Canals began to be built in the late 18th century to link the major manufacturing centres. Canals were the first technology to allow bulk materials to be easily transported across the country. A single canal horse could pull a load dozens of times larger than a cart at a faster pace. By the 1820s, a national network was in existence. Canal construction served as a model for the organisation and methods later used to construct the railways. They were eventually largely superseded as profitable commercial enterprises by the spread of the railways from the 1840s on.



## Roads

Much of the original road system was poorly maintained by thousands of local parishes, but from the 1720s turnpike trusts were set up to charge tolls and maintain some roads. Increasing numbers of main roads were turnpiked from the 1750s to the extent that almost every main road was the responsibility of some turnpike trust. Heavy goods transport on these roads was by means of slow, broad wheeled, carts hauled by teams of horses. Lighter goods were conveyed by smaller carts or by teams of pack horse. Stage coaches carried the rich, and the less wealthy could pay to ride on carriers carts.

## Railways

Puffing Billy, an early railway steam locomotive, constructed in 1813-1814 for colliery work. Wagonways for moving coal in the mining areas had started in the 17th century and were often associated with canal or river systems for the further movement of coal. These were all horse drawn or relied on gravity, with a stationary steam engine to haul the wagons back to the top of the incline. The first applications of the steam locomotive were on wagon or plate ways. Horse-drawn public railways did not begin until the early years of the 19th century. Construction of major railways connecting the larger cities and towns began in the 1830s but only gained momentum at the very end of the first Industrial Revolution. After many of the workers had completed the railways, they did not return to their rural lifestyles but instead remained in the cities, providing additional workers for the factories.

