

STEEL. Any combination of iron, usually with carbon, that is very malleable (capable of being extended by beating) at some high temperature and is capable of hardening greatly by sudden cooling, was formerly defined as steel. The name is now generally applied to any iron obtained in a liquid state, provided it is malleable, regardless of the percentage of carbon it may contain, and regardless, therefore, of whether or not it possesses the property of becoming hard on cooling. Varieties of steel are classified according to the presence or absence of slag, their carbon content, and their alloy (such as aluminium steel, chrome steel, manganese steel, etc.). (*See Iron and Steel.*)

STEPHEN, KING OF ENGLAND (1097 ?-1154). The 19 years that Stephen, grandson of William the Conqueror, reigned over England were one prolonged contest for the crown, with the result that feudal anarchy grew year by year, and the people were sorely oppressed.

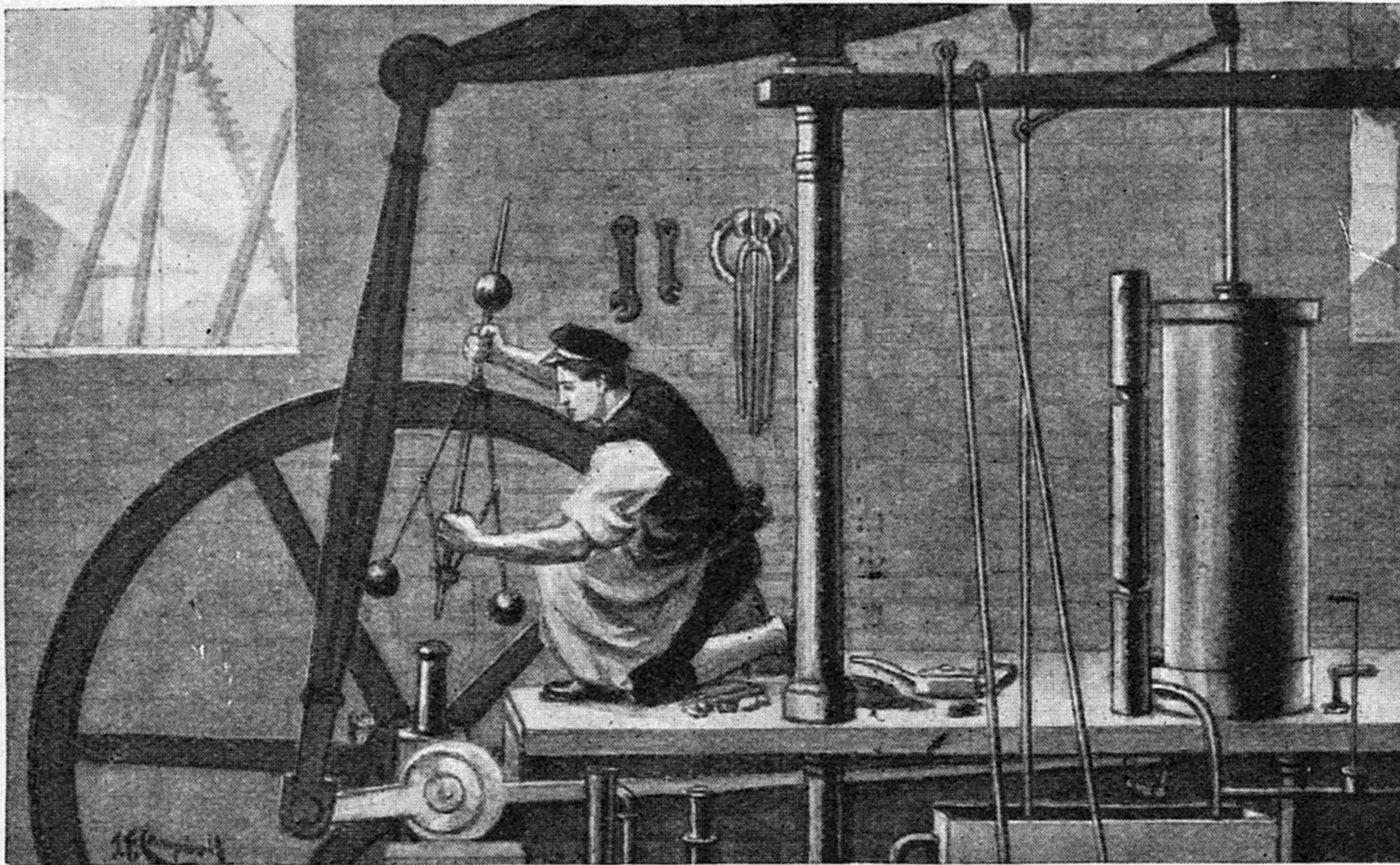
In the lifetime of Henry I the barons had sworn fealty to and had recognized as heir his daughter, Matilda, widow of the German

whose advancement he had fought, agreed to the treaty of Wallingford, by which Henry should succeed to the throne after Stephen's death. Stephen died the year after this settlement was made.

In the meantime England had fallen into the greatest misery that was ever her lot. It was the only time when feudalism reigned unchecked in the land. Lawless castles sprang up everywhere, and their garrisons lived by plundering the people. "If three men came riding into a town," says the old English chronicle, "all the inhabitants fled." And again, in speaking of the cruelties practised by the inmates of the castles: "They hanged up men by their feet and smoked them with foul smoke. They put knotted strings about men's heads and twisted them until they went into the brain. They put men into prisons where adders and snakes and toads were crawling, and so they tormented them. Many thousands they starved with hunger." Such horrors lasted the greater part of Stephen's reign, and were ended only with difficulty by his strong and active successor, Henry II.

(*See Henry, Kings of England.*)

LAYING THE FOUNDATIONS OF HIS SUCCESS



When Stephenson was employed to look after one of Watt's steam-engines he used to take it to pieces every night, thus gaining a thorough knowledge of its working.

Emperor, Henry V. After his death, however, they chose as King of England and Duke of Normandy the easy-going Stephen of Blois, son of Henry's sister, Adela.

Struggles for the Crown

Matilda did not let her inheritance slip without a struggle. Her husband, Geoffrey of Anjou, successfully asserted her claim to Normandy, and after his death their son, young Henry of Anjou, the future Henry II of England, took up the contest. Finally in 1153 Stephen, wearied by the unending struggle and saddened by the death of his eldest son, Eustace, for

ground. At 14 he was promoted to be his father's assistant at a shilling a day. At 21 he himself was an engine-man at two shillings, with his father under him as a fireman.

Eager to add to his knowledge of engines and steam, Stephenson entered a night school at the age of 18, learning at the age of 19 to write his own name. Most of his spare time was devoted to work and study, and his self-improvement brought him steady promotion. At 31 he was "engine-wright" (builder and erector of stationary engines) at Killingworth Colliery and earning a £100 a year—a larger

For any subject not found in its alphabetical place see information