

pletely changed the character of the woollen and cotton trades. Spinning was the general employment of unmarried girls who, even to-day, are in law described as spinsters. These girls were unable to spin enough yarn for the weavers, and when John Hargreaves invented the spinning-jenny, by which one spinner could spin many threads at a time, it gave a great stimulus to weaving by providing an almost unlimited supply of raw material. Richard Arkwright also invented a water-power frame for spinning, and Edmund Cartwright, a clergyman, invented the power-loom. The utility of these various machines was enormously increased by James Watts' steam-engine, which was soon applied to the work of running them. (Cartwright at first used a bull to operate his power-loom, but after a time he set up a steam-engine.) Gradually—more gradually than would be the case now—the new machines came into general use, and greatly decreased the cost of producing cotton and woollen cloth. The competition of the machines proved most disastrous to the handworkers, who were driven to starvation and pauperism.

Industrial Supremacy of England

In spite of all this, the introduction of the new machinery marked an enormous advance in national prosperity. It gave the British people a tremendous advantage over those of other countries. The English machine-worker could make far more of a given product in a given time than a Continental hand-worker, and although he got higher wages, his wages were less per unit of product, so that he was cheaper to his employer. Thus, the English manufacturer could sell his goods on the Continent for less than the price at which the Continental producer could compete. This English monopoly of machine production went on for a generation at least, and as a consequence of it all, we have the Continental nations crying out for protection against the cheap wares of England; and yet those wares were produced by workmen who were much better off than their own.