William A. Hunter

JOHN MERCER, 1791—1866

Mr. William A. Hunter, Accrington, Manchester, har vid sidan om sitt ordinarie arbete inom textilindustrien studerat denna industris historia i England och ägnat särskild uppmärksamhet åt James Hargraves och John Mercer.

John Mercer was aborn on the 21st February, 1791, at Dean, in the Parish of Great Harwood, about 5 miles from Blackburn, Lancashire. His ancestors, mostly farmers, had resided in that locality for many generations, and the names of some of them appear on the first page of the Great Harwood Parish Church Register dated 1556.

Towards the end of the 18th century, hand-loom cotton weaving had become the principal industry in the district, being carried on in cottages and small factories.

At the time of the birth of John Mercer, his father had a very small spinning factory at Dean Brook, near Great Harwood, and later, owing to the introduction of improved machinery in larger factories, he decided to revert to agriculture, and acquired the lease of a farm in the same parish, known as Stoops Farm. This farm was untenanted for many years and fast falling into decay, but was acquired in 1946 by Mr. D. Townsend, who has now skilfully reconditioned it and resides there. At this farm John Mercer spent several years of his boyhood and he always retained a pleasant memory of those surroundings.

In 1800 John's father died during a virulent epidemic leaving his wife and three children with very little property, and they went to live with the widow's mother, Mrs. Clayton, at a house near Great Harwood, known as "Back of Bowley," which still stands. It was in this house that the Rev. John Wesley stayed with John Mercer's maternal grandparents when on a preaching tour of those parts.

John, at the age of 9, had to go to work to help keep the family and became a "bobbin-winder," ultimately becoming a handloom weaver. He was 10 years of age before he received his first instruction in reading, writing and arithmetic, from a pattern designer, named Blenkensop, who was employed at the nearby Oakenshaw Print Works. Blenkensop recognised John's natural abilities, was pleased with his general good conduct, and took an interest in the boy and offered to give him lessons in the evenings.

John applied himself with great determination to his studies and had become very proficient before Blenkensop had to move from the district. He was particularly good in the solution of arithmetical problems and soon became locally famous as a mathematician. His love for music led him to form a choir and later an instrumental band.



One day in 1807 he was so struck with the colour of the dress his small sister was wearing that he became as he said "all on fire to learn dyeing."

Having learned that dyers in Blackburn bought their materials from a certain chemist in the town he went with his small savings and bought three pennywirth of each of the materials, alum, copperas, peachwood, logwood, brazilwood, etc., and returned to his home "full of deying and deying materials" to use his own words. He commenced his experiments entirely by "rule of thumb" but by great industry and perseverance he acquired a lot of useful knowledge.

Encouraged by the success of his experiments he decided at the age of 17 to commence a business dyeing short pieces of cloth, which handloom weavers had as perquists from the ends of long pieces. The success of his enterprise brought him to the notice of Mr. Fort who had i thriving printing works at Oakenshaw in the adjacent township of Clayton-le-Moors.

He became an apprentice, but was treated badly by the foreman in charge. He subsequently left to resume his own business, and his first invention, in 1817, was the production of a bright orange colour for printing fabrics—orange sulphide, which he obtained by making a solution of antimony in sulphide of sodium which when printed on calico and passed through a weak salution of sulphuric acid gave the bright orange colour, before unobtainable. He returned to Fort's works about 1820 as chemist.

He made many outstanding discoveries in the production of colours for calico printing, and in 1825 was made a partner in the business and the number of his chemical recipes increased. For several years Mercer had very little intercourse with scientific chemists. He had been making his own observations and forming his own conclusions.

Publicity and distinction were not sought by him, but in 1841 he became acquainted with Dr. Playfair, who at that time was a chemist at print works near Clitheroe, and this became a permanent friendship, and in 1851 Playfair—then the Rt. Hon. Sir Lyon Playfair—was asked by several scientists to suggest to Mercer that he should allow his name to go forward for election as a Fellow of the Royal Society. After some pressure by Playfair, Mercer acquiesced and was made an

F.R.S. in 1852. He was one of the original Fellows of the Chemical Society founded in 1842.

In the course of one of his experiments he considered the practicability of effecting a partial separation of different hydrates by slow fractional filtration, which led him to try the effect of filtering solutions of caustic soda through cotton.

"For this purpose," he wrote, "I made a filter composed of six folds of strong fine cotton cambric, passed through the calender three times to make it compact and poured upon it a solution of caustic soda 60° Tw."

"I found," he continues, "that my filtering cloth had undergone an extraordinary change; it had become semitransparent, contracted in both length and width." Thus in 1844, Mercerising was born, but owing to pressure of work the cloth was put aside.

Later, after he had dissolved partnership with Mr. Fort, he began further experiments, and having now no works of his own to make commercial scale trials, he approached Mr. Robert Hargreaves of Accrington to use his plant which he agreed to do and Mercer included him as a joint patentee.

At the Great International Exhibition of 1851, Mercer exhibited several examples of mercerised fabric which created much interest, and his invention was considered so important and valuable to the industry that he was specially awarded the distinction of a Council Medal. Contrary to usual practice, Her Majesty Queen Victoria, accepted from Mercer, a box of "mercerised" pocket handkerchiefs.

Mercer was a very religious man, kindly, unassuming and always ready to help the needy, and commanded the respect of all who came to know him. He died after a painful illness on the 30th November, 1866, in his 76th year, and is buried in the family tomb in the Parish Church of Great Harwood.