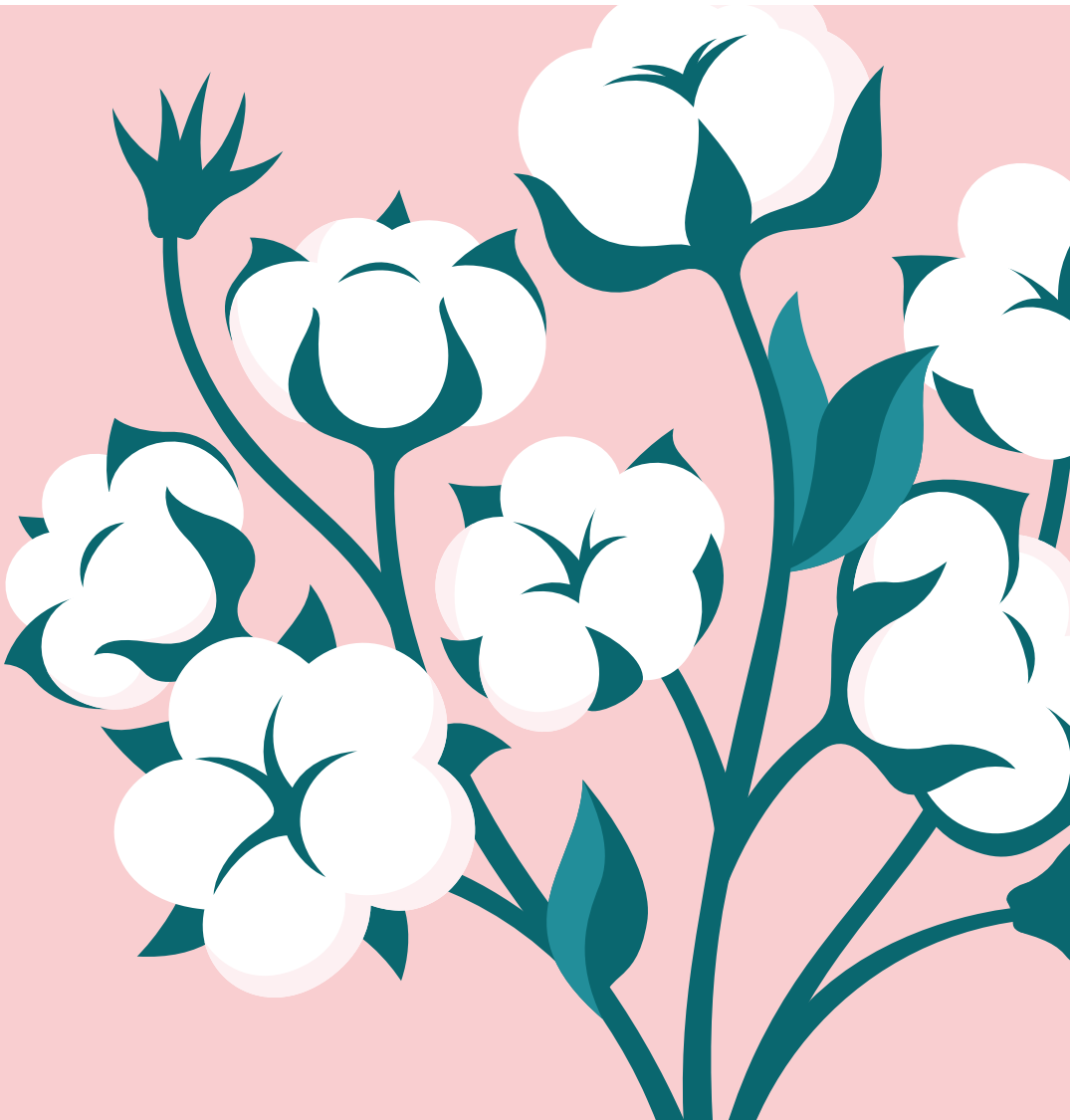




COTTON **IS KING**

Discovery Box





FLYING SHUTTLE

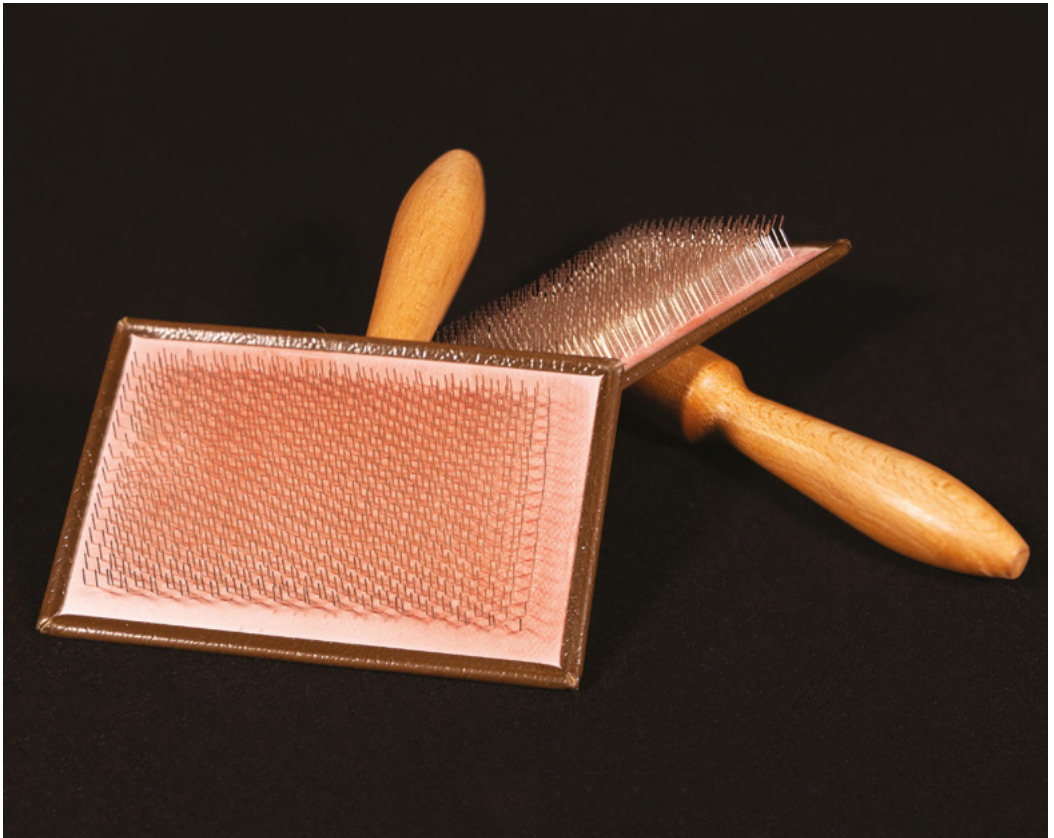
The flying shuttle is a type of weaving shuttle invented by John Kay in 1733 and replaced manual shuttle passing.

Using the flying shuttle allowed wider fabrics to be woven by a single weaver. The flying shuttle was a new source of injuries to the weaving process; if deflected from its path, it could be shot clear of the machine, potentially striking and injuring workers.

HAND CARDERS

A pair of cards is used to brush the wool or cotton between them until the fibres are more or less aligned in the same direction.

The aligned fibre is then peeled from the card as a rolag. Carding is an activity normally done outside or over a drop cloth, depending on the wool's cleanliness. Rolag is then peeled from the card and is ready to be spun into yarn.





FINE COTTON CLOTH

When it comes to assessing fabric quality, understanding thread count and weave is essential.

Thread count refers to the number of threads woven together in a square inch of fabric, and it plays a significant role in determining the fabric's overall quality. Additionally, the weave of the fabric, whether it's plain, twill, or satin, can greatly impact its durability, appearance, and feel.

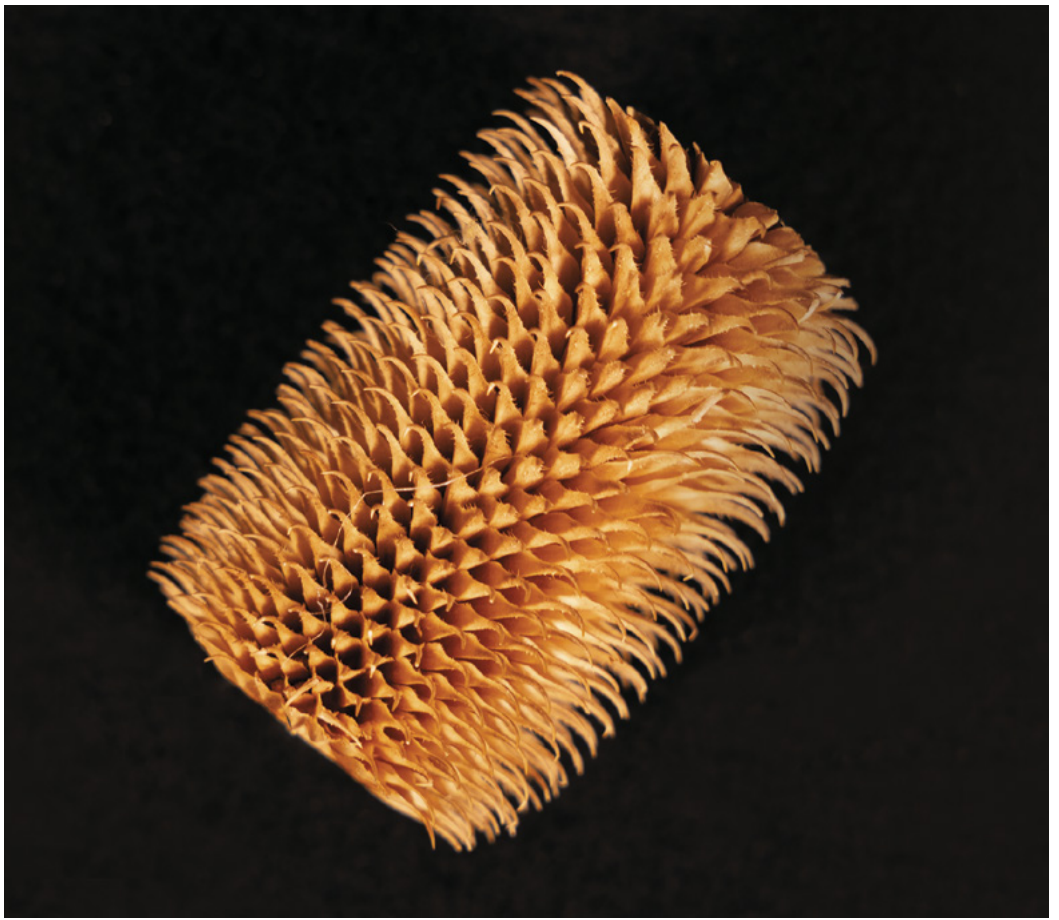
COTTON TEA TOWEL

Cotton is really absorbent:

Cotton tea towels are great at soaking up spills because cotton fibres can hold a lot of water.

This makes them perfect for drying dishes and cleaning up messes. Unlike some materials that get weaker when they are wet, cotton actually gets stronger. This is why cotton tea towels are so durable and can be used over and over again. Besides drying dishes, cotton tea towels were often used for wrapping around a hot teapot to keep the tea warm.





TEASEL

The dried flower heads of the fuller's teasel (*Dipsacus sativus*) were used in the textile industry to raise the nap (the texture) on fabrics, a process known as “fulling”.

Teasels are known for their tall, prickly stems and conical seed heads, which can reach up to 2 meters in height. The flower heads are often green with rings of purple flowers during their blooming period from July to August. Teasels are native to Europe, Asia, and Africa but have been introduced to North America. They thrive in damp grasslands, field edges, and disturbed grounds like roadside verges.

SAMPLES OF COTTON

Cotton has been used for over 7,000 years to make cloth.

Cotton is a soft, fluffy staple fibre that grows in a boll, or protective case, around the seeds of the cotton plants. The plant is a shrub native to tropical and subtropical regions around the world, including the Americas, Africa, Egypt and India, with over 50 different natural species of cotton.

Cotton was the first plant to grow on the moon—China's Chang'e 4 spacecraft carried cotton seeds to the moon. According to China, the cotton seeds from that batch germinated in January 2019 inside the spacecraft at the Von Kármán lunar crater.





FREDERICK DOUGLASS COIN

Frederick Douglass visited Rochdale in 1846, where he delivered several powerful speeches about his life as a slave and the horrors of slavery in the United States.

He spoke at the Public Hall on Baillie Street to packed audiences, including many millworkers. Douglass was introduced by John Bright, a British Member of Parliament and a strong advocate against slavery.

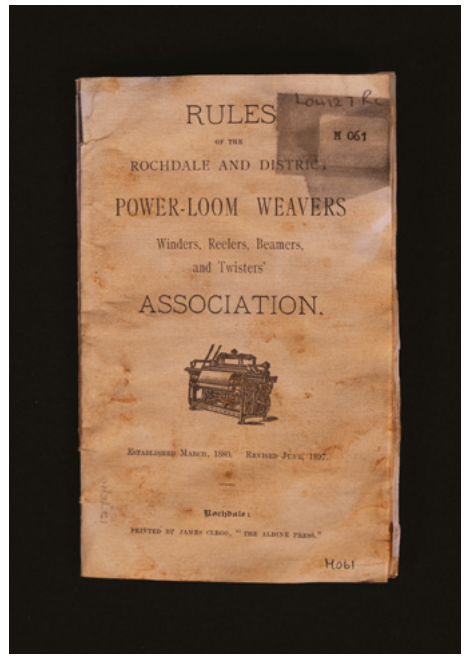
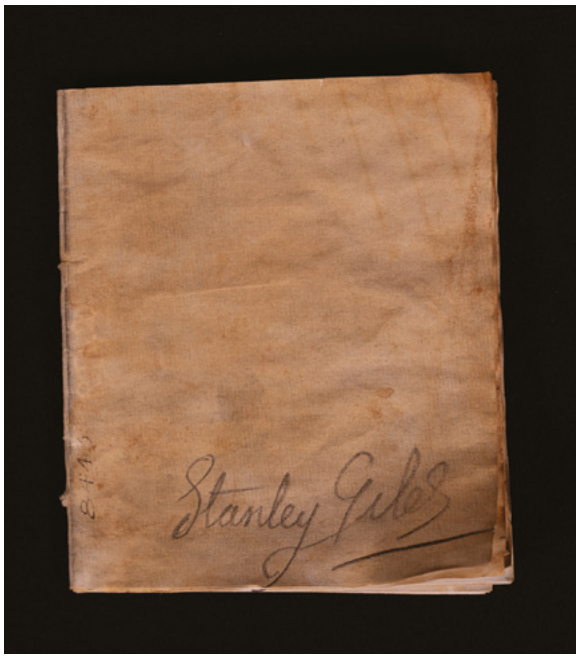
During his time in Rochdale, Douglass also connected with the Rochdale Pioneers, the founders of the first modern cooperative, who were deeply involved in social and political change. His visit left a lasting impact on the community and contributed to the broader abolitionist movement in the UK.

REPLICA OF A HALF-TIMER STATUE

Artist: Eliab George Earthrowl (1878-1965)

The “Half Timer” statue was made as a tribute to Rochdale’s rich industrial heritage, particularly its textile industry. The statue represents a young boy who worked part-time in the mills while attending school, a common practice during the industrial revolution. This statue is located in the Touchstones’ collection and serves as a reminder of the hard work and contributions of the mill workers to Rochdale’s development.





RULE BOOK FOR WEAVERS

A trade union is an organisation of workers whose purpose is to maintain or improve the conditions of their employment, attaining better wages and benefits, improving working conditions, improving safety standards, and protecting and increasing the bargaining power of workers. The government and employers were against the setting up of trade unions because they would have to spend money making things fair and looking after the people that worked for them. By the 1850s, unions had grown powerful enough to win better protection and contracts for their members. Rochdale was a leader in this change for everyday people.

The Rochdale and District Weavers', Reelers', Beamers' and Doublers' Association was a trade union representing cotton industry workers in Rochdale. A union of weavers, working both in cotton and in wool, existed in Rochdale in 1860. In the 1890s, the Rochdale association was one of the largest weavers' unions, with more than 2,500 members. Its membership initially continued to grow, reaching 4,000 in the early 1900s, two-thirds of whom were women. By the 1920's, membership reached a peak of more than 5,000.

MINIATURE REPLICAS OF COTTON BALES

These are miniature versions of cotton bales; the real ones are 250 times heavier than our replicas. A cotton bale is a standard-sized and weighted pack of compressed cotton lint after ginning (the process of treating cotton with gin to remove seeds and debris from the cotton). The dimensions and weight may vary with different cotton-producing countries. One bale of cotton can make 4,321 socks or 300,000 banknotes or 215 pairs of jeans or 690 bath towels or 1,217 t-shirts.

In many societies, slave labour was utilised to pick and pack the cotton; the work was extremely hard and the enslaved people were often beaten and had no rights. The cotton growers or plantation owners used enslaved people because they didn't have to pay them so their profit would be even higher.





COTTON PLANT

Once a cotton plant flowers and is pollinated, it produces a fruit called a boll.

The boll is a hard capsule with fibre and seeds inside. When the fruit is ripe, the boll splits open, revealing the fluffy stuff we know as cotton. Cotton flowers are also quite beautiful.

Cotton has been used for over 7,000 years to make cloth all around the world. Although there are 50 types of cotton plants, only 4 of these are used industrially. One of these varieties exists in South Africa, one in India and two come from the Americas.

Cotton is a sustainable plant. Every part of a cotton tree, including the boll, flower, linters, trunk, and leaves can be used. The fibre is used to make cotton cloth; the trunk can be used for timber; and the linters are used for making explosives, plastic, and other products. Overall, there is no wastage from a cotton tree!

HANDHELD KNOTTER

At the start of the Industrial Revolution, a 'piecer' was responsible for piecing together, with finger and thumb, the broken threads that occurred in the spinning process. It was a job requiring alertness, speed, dexterity and nimble fingers. It was often the job of a child, therefore the wages for a piecer were very low.

Occupational accidents included limbs being caught and crushed in machinery. One particularly common hazard was fingers becoming trapped. Newspapers contain reports of piecers who, as a result of this type of accident, needed fingers amputating.

When the Handheld Knotter was invented, it helped make the process of tying knots easier and reduced the time required for tying the ends to 1 second!





MANILLA

Manillas were worn originally by women along the West African coast as a symbol of their husband's wealth.

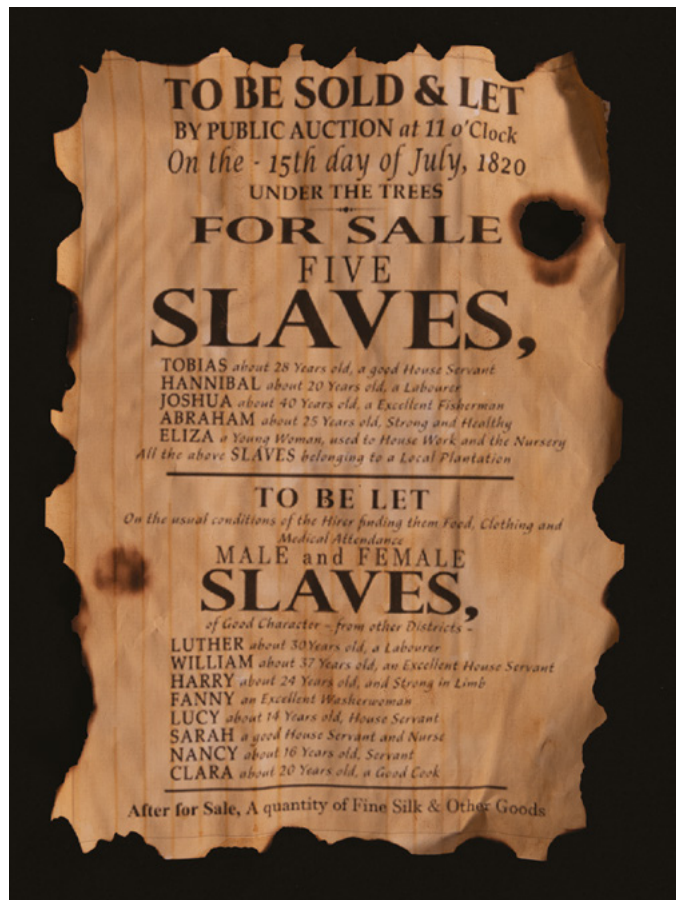
Initially these bracelets/'bangles' were made from copper as it was the "red gold" of Africa. Noticing the importance of this piece of jewellery to West African people, Portuguese merchants began to produce these pieces as a means of currency, specifically to buy enslaved people.

After capture, these people then would be forced on board a ship, spending around 20 weeks on route in terrible conditions. Once they arrived, they would be inspected and then taken to auction to be sold to plantation owners. Over 11 million people were forcibly taken from West Africa to be enslaved in the Americas.

ENSLAVED PEOPLE SALES POSTER

The use of enslaved African people for labour was not new to the Industrial Revolution: the Spanish and Portuguese had been using enslaved African people since the 16th century. However, the Atlantic slave trade of the 18th century was a new kind of slavery and on a scale much greater than ever before. It was the British who played a major part in this trade. The West Indian and American plantation owners increasingly turned to enslaved African people for labour to keep profits high.

The slave trade offered an opportunity to get rich quick, and many traders grew wealthy from its profits. Some merchants used their wealth to invest in British industries, banks and new businesses. Much of the profits of slavery were used to buy land or build large buildings as status symbols or indulge businessmen in expensive hobbies. Many of our great buildings and institutions were built or formed with profits from industries using enslaved people.





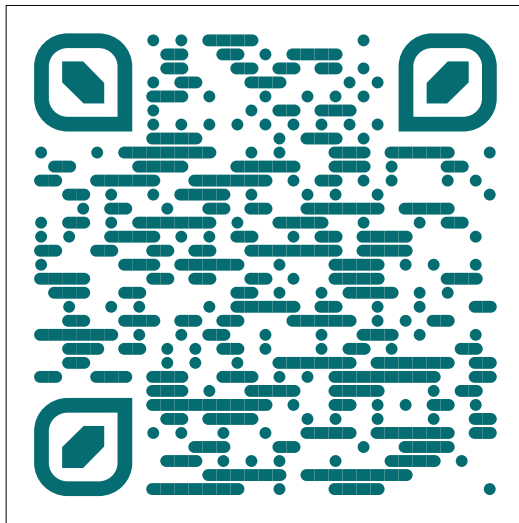
CHILDREN'S JOB ADVERTISEMENT

When the Industrial Revolution began, manufacturers used children as a workforce. Children often worked the same 12-hour shifts as adults, but they could work shifts as long as 14 hours. By the 1820s, 50% of English workers were under the age of 20. Children were the cheapest labour at the time. A child worker was 80% cheaper than a man and 50% cheaper than a woman. Children were used in the cotton mills because they were small and nimble, however, this meant they were often employed to do some of the most dangerous jobs on, underneath, or in huge machines.

The Cotton Mills and Factories Act 1819 limited work to children 9 years old or older, and children could not work more than 12 hours a day if they were not 16 years old or older. The 1833 Factory Act improved conditions further by stating that no child under the age of 9 could be legally employed, children 9 to 13 years old could not work more than 8 hours, and children 14 to 18 could not work more than 12 hours a day; children could not work at night; children needed to attend a minimum of 2 hours of education a day; and employers needed age certificates for their workers.

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