**Matsuemon Canvas**

Before the Edo period (1603–1867) in Japan, sailing was unpredictable. Sails were of poor quality, made of woven reeds or thin cotton, and were prone to fraying and ripping in heavy rain or strong winds.

Takasago-born businessman and inventor Kuraku Matsuemon (1743–1812) developed a tough but flexible canvas made from cotton yarn. He first made thick cotton yarn from strands of thread that he twisted together, and then wove the yarn into cloth using a loom of his own design.

Although Matsuemon canvas was more expensive than other materials, it soon became popular. Agronomist Okura Nagatsune (1768–1856) noted in his 1822 book, *Nogu benri ron* (Convenient Farm Tools), that the canvas was used on every boat and ship in Japan at the time.

It is thought that the boom in Japan’s maritime trade was largely due to the use of Matsuemon canvas, which allowed ships to sail more regularly. They could sail with even the slightest breeze and could better withstand rough storms, making travel safer. Since ships could travel faster, the time required to transport goods around Japan was greatly reduced.