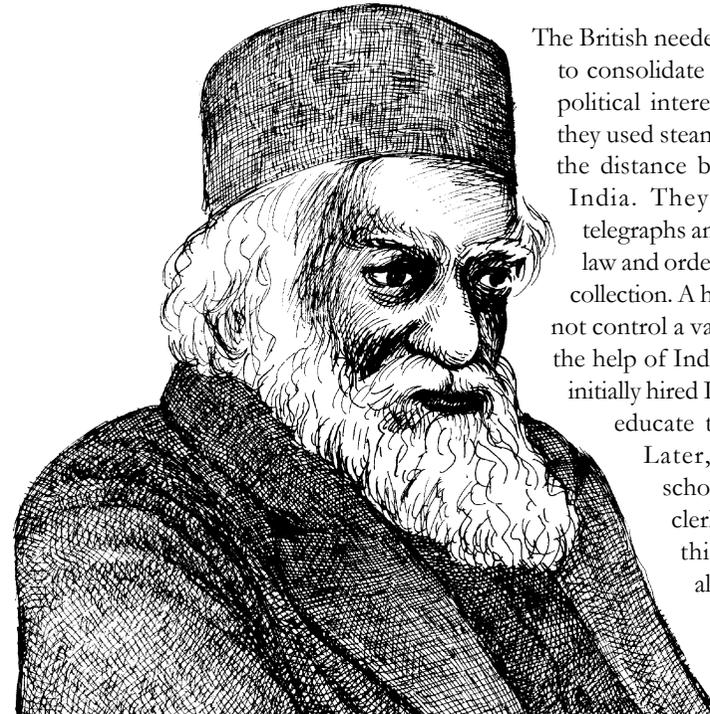
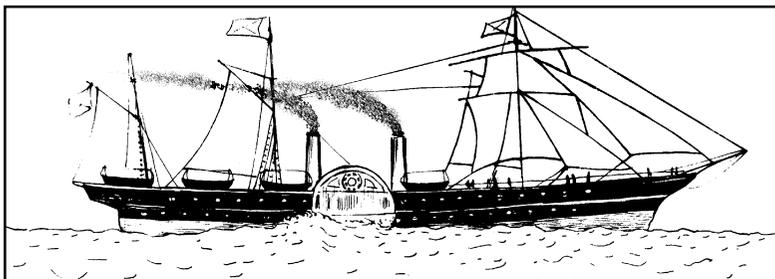


Few Indians would have ever heard the name of Ardaseer Cursetjee. Even fewer would know that this marine engineer from Bombay was the first Indian to become a fellow of the Royal Society - on 27 May, 1841. The next fellowship conferred on the famous mathematician - S. Ramanujan came only 75 years later!



The British needed modern technology to consolidate their commercial and political interests in India. For this they used steam navigation to reduce the distance between England and India. They laid a network of telegraphs and railways to maintain law and order and increase revenue collection. A handful of British could not control a vast India. They needed the help of Indians in this task. They initially hired Indians as informers to educate them about the land.

Later, the British set up schools to train Indians as clerks and calculators. But this modern education also laid the seeds of a national awakening in Indians.



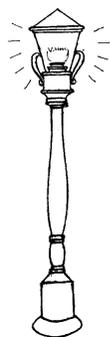
Cursetjee's family had a long history of service to the British in the field of shipbuilding. His ancestor Lowjee Nusserwanji (Wadia) was a carpenter at the Surat dockyard. Later the British brought him to Bombay to build a dockyard. The British built ships using oak logs. But soon the expansionist Empire ran out of oak trees. They found a better substitute for oak in the Malabar teak – it was strong and decay-resistant. With abundance of teak and skilled workers, Bombay emerged as a major ship-building centre. Shipbuilding brought great prestige to the Cursetjee family.

The use of the steam engine in navigation virtually coincided with Cursetjee's birth in the early 19th century. However, Cursetjee was more interested in steam machinery than in ship-building. He soon showed his mettle by building a 1-HP engine. It was installed in a well to pump water to a small fountain. This was the first engine built in India. In 1833, Cursetjee obtained a 10-HP marine engine from England and installed it in a vessel named *Indus*. In October 1833, he was made assistant builder at Mazagaon. Cursetjee maintained a small private foundry at his residence where he fabricated wrought-iron tanks for ships.

His next engineering feat was the installation of gas lighting. By 1834, he lighted his bungalow and gardens at Mazagaon, using gas.

Soon he was invited to teach practical sciences at the newly established Elphinstone Institute. He assisted the Institution 'in instructing the natives', especially in mechanical and chemical sciences. Three years later, he was elected a non-resident member of the Royal Asiatic Society of England.

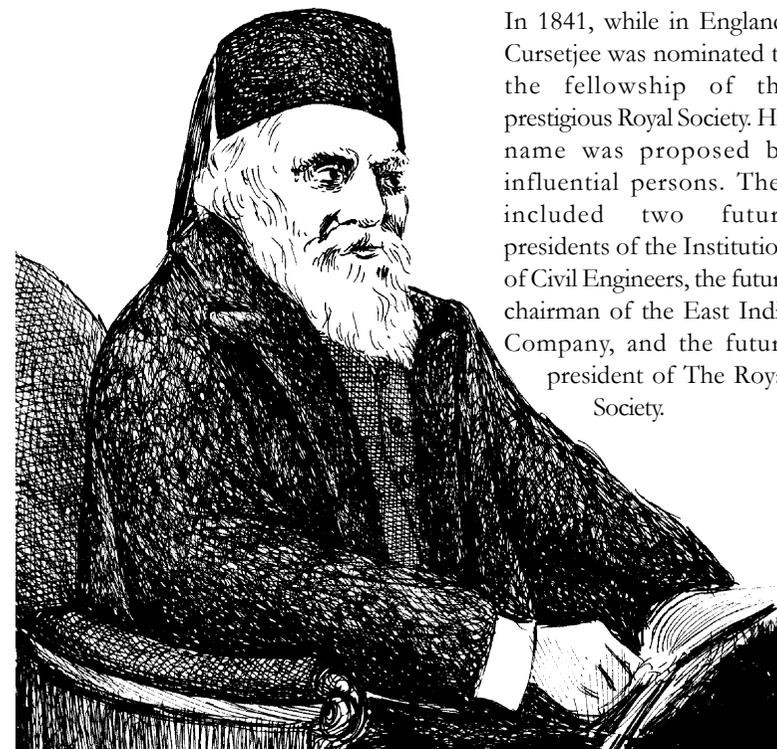
Cursetjee soon decided to spend a year in England. He wanted to learn the latest about marine steam engines. On this trip he



took his servants along, because he only ate food cooked by Parsis. In matters of religion, Cursetjee was a severe traditionalist. He did not approve of a young Parsi not donning the traditional cap in England. He was invited to attend a meeting of a House of Commons committee.

For all his hyperactivity though, Cursetjee was not too impressed by London. He found the royal mint considerably inferior to the one at Bombay. And he castigated London's "dirty roads", comparing them unfavourably with Bombay's.

Professionally, however, Cursetjee's British sojourn was very successful. He became an associate of the Institution of Civil Engineers, a member of the Society of Arts and Science, and of the mechanical section of the British Association for the Advancement of Science. He was appointed chief engineer and inspector of machinery in the Company's steam factory and foundry at Bombay. The post carried a salary of Rs 600 per month, more than seven times his then salary as an assistant builder.



In 1841, while in England, Cursetjee was nominated to the fellowship of the prestigious Royal Society. His name was proposed by influential persons. They included two future presidents of the Institution of Civil Engineers, the future chairman of the East India Company, and the future president of The Royal Society.

Today The Royal Society has a reputation of being an association of eminent scientists. But in the early decades of the twentieth century, The Royal Society was also a club of gentlemen *curious in natural history*, well acquainted with mathematics and engineering, or ‘conversant in various branches of experimental philosophy’. In terms of the norms then in vogue, the Society would have characterised Cursetjee as a distinguished engineer – and as a promoter of science.

Cursetjee’s fellowship of the Royal Society remained strictly a private honour. It did not advance his professional career in any way, nor did it impress his countrymen. In the meantime, he returned to Bombay, and took his new charge on 1 April 1841, becoming the first native to be placed over Europeans. His staff consisted of one chief assistant, four European foremen, 100 European engineers and boiler makers, and about 200 native artificers. It burned many a European heart. The *Bombay Times*, a newspaper with a bias in favour of colonial rulers, did not approve of his appointment. It wrote, “*We doubt the competency of a native, however able or educated, to take charge of such an establishment as the Bombay Steam Factory with a body of Englishmen to be directed, superintended and controlled*”.

But Cursetjee made a success of the job. He visited America in 1849 and selected woodcutting machines to be sent on to Bombay. The manner in which Indians were stereotyped by Americans can be seen in the following memoir by a member of a family he visited in the USA:

*Among the strange foreign visitors of those days, we were somewhat startled one evening by a friend’s bringing a real live Parsee, with a tall calico beaddress, to take tea with us. It was rather a revelation to me that a fire worshipper could take tea like ordinary mortals. But he was a harmless lion, and roared very gently, and drank his tea and ate his bread and butter quite like other folks and told us many interesting things about his life in Bombay. I remember we all spoke very distinctly, as if we were talking to a child, and that he answered us in a very low cultivated refined voice, using much better English than we did.*

In February 1851, Cursetjee launched a steamer called *Lowjee Family*. Every part of this ship was indigenously fabricated at Ardaseer Cursetjee’s own foundry located at his residence. He was the first to introduce Bombay to the sewing machine, photography and electroplating.

In 1861, he was appointed Superintending Engineer of the Indus Flotilla Company, and took charge of the Company’s steam branch and workshops at Kotree in Sind. The Flotilla was at that time under the Indian Navy, which was

disbanded in 1863. Consequently, the Flotilla was broken up. Cursetjee resigned his post in 1863 and went to England, settling down at Richmond, where he died on 16 November 1877.

It is surprising that for all his achievements, he remains virtually unknown. Calcutta by then had become the hub for scientific activity and those leading the renaissance knew little about Cursetjee. This is perhaps the reason why India’s first modern engineer never became a role model for his countrymen. The Government of India did bring out a postal stamp to commemorate the memory of this master ship builder.

