HISTORY OF **GALVANIZING**

500BC

The famous Indian medical text, Charaka Samhita, written around **500 BC**, mentions a metal which when oxidised produced pushpanjan, also known as 'philosopher's wool', thought to be zinc oxide. The text details its use as an ointment for eyes and a treatment for open wounds.

1742

In **1742,** a chemist named Melouin presented a paper to the French Royal Academy in which he described how a zinc coating could be obtained on iron by dipping it in molten zinc. Interest in Melouin's discovery spread quickly through scientific circles and the first application was to use molten zinc as a cheap protective coating for household utensils.

1743

1743 saw the first European zinc smelter being established in Bristol.

1780

In **1780,** an Italian, Luigi Galvani, discovered the electrical phenomenon of the twitching of a frog's leg muscles when contacted by two dissimilar metals, namely copper and iron. Galvani incorrectly concluded that the source of the electricity was in the frog's leg. The term 'galvanization' began to appear in the lexicon.

1800

In **1800,** Alessandro Volta was able to prove this by constructing a stack of alternating zinc and silver plates with a piece of cloth soaked in a salt solution between the individual plates. This device, known as Voltaic pile, was the world's first battery.

1824

In **1824**, Sir Humphrey Davy showed that when two dissimilar metals were connected electrically and immersed in water, the corrosion of one was accelerated while the other received a degree of protection. From this work he suggested that the copper bottoms of wooden naval ships (the earliest example of practical cathodic protection) could be protected by attaching iron or zinc plates to them.

1829

In **1829** Henry Palmer of the London Dock Company was granted a patent for 'indented or corrugated metallic sheets', his discovery would have a dramatic impact on industrial design and galvanizing.

1836

In **1836**, Sorel in France took out the first of numerous patents for a process of coating steel by dipping it in molten zinc after first cleaning it. He provided the process with its name **'galvanizing'.**

1844

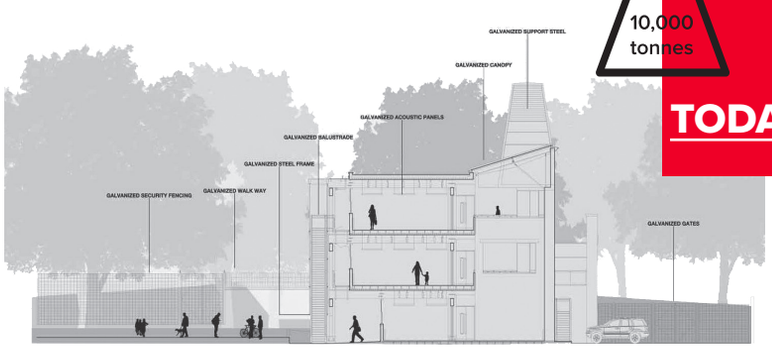
The first use of galvanized corrugated iron is believed to be for the Navy at Pembroke Docks, Wales

1850

By **1850**, the British galvanizing industry was using 10,000 tonnes of zinc a year for the protection of iron.

TODAY

Galvanized steel is all around us and plays a vital role in our everyday lives. It is used in construction, transport, agriculture, power transmission and everywhere that good corrosion protection and long life are essential. (see diagram to left)



GALVANIZERS ASSOCIATION

For more information visit www.galvanizing.org.uk