



Object 37: Lister's donkey engine



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What is it?

The donkey engine was a device developed by Lister to produce a mist of carbolic acid in the operating theatre in an attempt to reduce post-operative infection. An assistant would pump the handle up and down to release a mist of acid into the air. Carbolic acid, now more commonly known as phenol, is an organic compound with the formula C_6H_5OH . Lister recognised the antiseptic properties of phenol and used it during operations as well as cleaning surgical instruments and wounds with the chemical.

History

Joseph Lister was a nineteenth century English surgeon who recognised the importance of antiseptic technique in avoiding infection, particularly after surgery. Until then, people thought that infection was due to 'miasma' or 'bad air'. Over half of patients operated on died from wound infection. Lister's work demonstrated that infection was passed from person to person by contaminated instruments or the surgeon's hands. Lister pioneered antiseptic technique and played an important part in the reduction in deaths following surgery. The first donkey engine was built by Andrew Brown in Glasgow.

Pathology

Lister is often known as the father of antiseptics. His work and that of other scientists including the French microbiologist Louis Pasteur, resulted in a greater understanding of the cause and prevention of infectious disease. The modern pathology specialty of microbiology developed from the work of these scientists. Listerine mouthwash was named after Lister in 1879 and the bacterium *Listeria* was named in honour of Lister in the 1920s.

Find out more

Read more about Lister and his work on the [nndb website](#).

You can also visit a statue of Lister in [Portland Place, London](#).