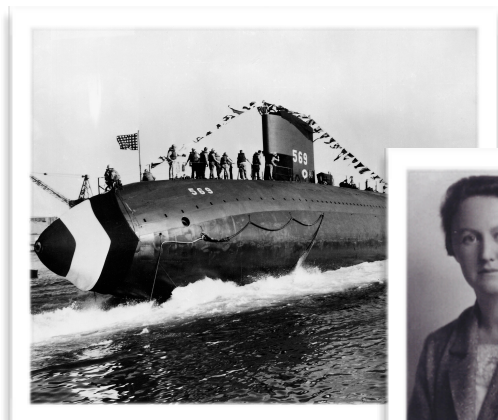


## Electrifying Women 5 Key Themes: Further Information

### INNOVATION

#### The Lyon Shape

[Hilda Lyon](#) (1896 –1946)



In the 1930s, Lyon worked as the Principal Scientific Officer at the Royal Aircraft Establishment, researching wind tunnels, boundary layers suction and stability. She later served on the Aeronautical Research Council. After her death, her work was adapted from airships to submarines in the USA including the USS Albacore (pictured) and this new design was called ‘the Lyon shape’.

Read more on [this blog on The Engineer](#).

#### [R.A.E. Restrictor](#)

[Beatrice Shilling](#) (1909-1990)

While employed by the Royal Aircraft Establishment (RAE), Shilling designed a restrictor to plug a hole in the engines of spitfire planes (pictured), which had been failing during combat in World War Two. It is sometimes referred to by the slightly controversial nickname ‘Miss Shilling’s Orifice’.

There are lots of examples of other women in the 20th century who had long innovative careers in engineering, see also [Verena Holmes](#), [Gertrude Entwisle](#), [Constance Tipper](#) and the [Magnificent Women blog](#) for lots more.



#### The Lowe-Vansittart Screw Propeller

[Henrietta Vansittart](#) (1833-1883)

After taking over from her father’s work when he died, Vansittart improved the screw propeller her father worked on and patented it in the UK and USA. It was used widely in ships and reportedly made them run much faster. Read more [here](#).

Other 19th century examples include [Sarah Guppy](#) - the first woman to patent a bridge (in 1811) and [Hertha Ayrton](#) - the first woman admitted to the institution of Electrical Engineers for her work on arc lighting. Read more about Ayrton [in this article](#) by Elizabeth Bruton.

