

HIDDEN GEMS AND FORGOTTEN PEOPLE



WILLIAM REID CLANNY (1776 – 1850): Physician and inventor of a mining safety lamp

William Reid Clanny was born in Bangor, County Down, 1776. He studied medicine in Edinburgh. He worked first as an Assistant Surgeon in the Royal Navy and later as a doctor in Bishop Wearmouth near Sunderland.

In 1812 the Felling mine disaster and later in the year the explosion at Mill Pit in Herrington near Sunderland concentrated minds on the problems of underground lighting.

In the same year Clanny took his first steps towards the development of a safe light for use in underground mines. Without any very great knowledge of chemistry he conceived the idea of insulating a candle by enclosing it in a metal lamp, with water chambers above and below it, through the lower of which air should be forced by bellows, and from the upper of which the surplus air should be expelled by the same action. This lamp was completed in 1812, and successfully tried in the Harrington Mill pit, a very fiery mine, on 16 Oct. and 20 Nov. 1815.

He described his first lamp on May 20, 1813 in a paper "*On the means of procuring a steady light in coal mines without danger of explosion*" for the Royal Philosophical Society.

Although the construction prevented any possibility of the ignition of methane in the mine, the "bellows lamp" found no practical application, largely because it required the services of a second person to operate the bellows while the lamp was being used to illuminate the work being done.

Clanny developed a more portable version of his bellows lamp, the "blast lamp", which was tested in the upcast shaft of Hetherington Mill Colliery on October 16, 1815. He developed lighter and more portable lamps culminating in his sixth lamp, which used a glass globe beneath the gauze to provide better illumination. This, the "Clanny lamp", formed the basic design for all the lamps that followed.

On May 31, 1816, Clanny was awarded the Silver Medal of the Royal Society of Arts for his invention of the "steam lamp". He was further honoured with the Gold Medal of the same society in May, 1817.

His lamp and other improvements were, after some initial disputes, recognised for their true worth by his contemporaries, including northern coal owners who presented him with a purse of gold. with a silver salver at the Athenæum, Sunderland, on 3 February 1848.

As well as his work in the mining industry, Clanny played a significant role in the fight against cholera. He died on January 10, 1850, near Sunderland, Co. Durham, in England.