

GAS

The Germans first used poison gas made from chlorine at the 2nd Battle of Ypres in April 1915. Britain retaliated at Loos in September, but the wind blew the gas back causing 2,000 British casualties. Later, even more horrific gases were developed from phosgene and mustard. Different types of masks and respirators were produced but the one that proved to be most effective was invented by a native of Settle.

“... it is a ghastly invention”

Padre Harry Blackburne, after the Battle of Loos

Dr Bertram Lambert O.B.E.

Bertram was born in Settle in 1881. From Settle National School, he won a scholarship to Giggleswick School and thence to Merton College, Oxford where he was awarded a first class honours degree in Natural Sciences. For several years he ran the University Chemical Laboratory in Oxford.

The early masks were like enormous hoods soaked in particular chemicals. They were cumbersome and difficult to see out of. Throughout 1915, Bertram worked on developing a box respirator. A tin filled with charcoal and chemicals, separated by gauze, was connected to an impervious face mask by a rubber tube. The tin had an air inlet valve, the tube a rubber outlet valve. The mask was held in place by elastic bands around the back of the head. The poisoned air was drawn into the tin where the toxic gas was removed, so good air was breathed in. The whole was carried in a waterproof satchel.

Together with Edward Harrison and John Sadd, Bertram improved the respirator, which became standard issue to the troops by 1917.

Bertram's invention saved a great number of lives.



Dr Bertram Lambert, the son of James and Mary Lambert of Lambert printers.



A Hypo Helmet. This was effective against chlorine gas but uncomfortable to wear and difficult to see out of.



The Lambert small box respirator, seen here in the Imperial War Museum and described there as the most effective of all the gas masks produced during WW1.



The effects of gas poisoning were horrendous and many were blinded but surprisingly few victims were killed.

“The gas at first made me rather elated, then my eyes wept and my head felt “light”. Coming out of the trenches, I collapsed.” Capt. Whittaker, 6th Bn. Duke of Wellington's Regiment

1915 REALITY HITS HOME



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Images / captions

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Reality Hits Home

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