1914

Aug The French used **tear gas** grenades against the Germans.

Oct The Germans used **chemical irritants** against the French at Neuve Chapelle.

1915

The Germans used **tear gas** howitzer shells against the Russians at Bolimov (Bolimów) 31 Jan in central Poland. Mar The Germans used improved **tear gas** at Nieuport, in Flanders, against the French. The Germans used **chlorine** from canisters at the Second Battle of Ieper (Ypres) in 22 Apr

The British used **chlorine** from cylinders at the Battle of Loos. 24 Sep

1916

Flanders.

Phosgene attacks were widely used by both sides. Aug

1917

The Germans began using **mustard gas** at Riga, in Latvia, against the Russians, leading to widespread use on both sides fired mainly from shells.

1918

There were 188,706 British gas casualties with 8,109 deaths. Russia had 419,340 casualties and 56,000 deaths.

There was no centralised chemical warfare manufacture in the UK. All production was through a dispersed number of small manufacturers.

1925

"The Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare" was signed by all the major 17 Jun powers except Japan. This prohibited the first use of such weapons but not their manufacture.

> J. B. S. Haldane, the geneticist and evolutionary biologist, wrote his famous monograph "Callinicus, a Defence of Chemical Weapons".