

Like so many other inventions forecast in science fiction, Chemical and Biological Warfare was also predicted, first by Albert Robida (1848-1926) in his classic book *La Guerre au Vingtième Siècle*, published 1887 and republished 1991 in Paris by Librairie Jules Tallandier. After a description of tank warfare, and later also of underwater battles, his fourth chapter is devoted to '*Le Corps médical offensif*' (!) a dramatic, accurate and fully illustrated by the author, anticipation of chemical and biological warfare. Gas masks are worn by soldiers, diseases spread in the enemy's ranks, and the methods of distribution were described and illustrated by Robida.

In comparison, "The Stolen Bacillus" (1895) by H.G. Wells (1866-1946) was a very minor terrorist act. In this short story an anarchist tries to steal cholera bacilli from a bacteriologist to poison London's water supply, but by mistake is given a different one. One would have thought that once chemical warfare had been forecast by Robida, it would be used, as it is so easy to carry out. Fritz Haber was the first (1868-1934) to prove this during World War I, when he turned a few taps, to open a small number of chlorine gas cylinders in 1915.

At a London Conference about CBW in February 1968, Lord Ritchie-Calder revealed that during World War II Britain had developed a special strain of *Clostridium botulinum bacterium*, referred to as the 'Doomsday Bug'. It was designed to retaliate, if Hitler had used bacteriological warfare. But it was also important to inform the Germans of this fact, and therefore a few selected Canadian soldiers were instructed, if captured, to reveal that they had been inoculated against botulin. "It seemed to work" said Lord Ritchie-Calder "and Germany never used bacteriological warfare." My report about the Conference was published in full.

As far as I can trace now, that was the beginning of the running story about CBW which swept the British Press at the beginning of 1968. *We all fall down* was the title of a book by Robin Clark, the Editor of *Science Journal*, which was published in May and kept the story going. I was attracted by the book and gave it a full review in the *Daily Telegraph*. A sub-editor gave it the irrelevant title "When the Scientist goes to War".

The horror of CBW and the antipathy to those working on the subject arise from the reversal of all the basic concepts of 'medicine and science for the benefit of mankind'. The Scientific Temper aims at the benefit of mankind! Yet statistics from World War I can be quoted, proving that at least chemical warfare is more humane than bullets and missiles. Then a quarter of all American war casualties were caused by gas, but only 2% did not survive, whereas 26% of the non-gas casualties died. The life-long suffering of gas casualties was not included in these statistics.