

Preservation of food in glass or can 'revolutionary', still used two centuries later

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We owe the industrial revolution to it, expeditions depended on it and waging war would never be the same again - preserved food in glass or cans. We have now had it for exactly 200 years. Five questions about tinned food.

Food in tins? Yawn.

Not at all. It is not for nothing that Tiny van Boekel, Wageningen University professor with the Product Design and Quality Management Chair Group, calls the discovery of food preservation 'brilliant' and 'revolutionary'. 'I think the [industrial revolution](#) would never have happened without tinned food, for instance. People didn't have to grow so much food, which gave them time to work in the factories.'

Who invented it?

The French cook Nicolas Appert spent years experimenting with the preservation of food. He filled glass casks with food, sealed them with cork and wax, and boiled the casks for several hours. That worked. The food may have turned to a pulp but the bacteria were completely destroyed, which meant the food didn't spoil. Appert's method became known when he won a competition set by Napoleon Bonaparte who was looking for ways of making it easier to feed his army.

But that was glass.

That's right. The disadvantage of tins in those days was that there were no tin-openers. The lead seal had to be removed with a hammer and chisel. A convenient tin-opener came on the market fifty years later and tinned food became a mass-market product.

Why does the food keep?

The [bacteria](#) are killed during the cooking process. But it was only several decades after Appert's invention that this was discovered by Louis Pasteur.

Do we still use the same method?

The principle is still the same but the technology has been refined. We don't use tin or lead any more, for example, as they are poisonous. The process of heating has been fine-tuned to enable optimum preservation of taste and quality. Though it must be admitted that tinned beans are still rather unappetizingly limp - not exactly what you would want for an intimate dinner for two.

Provided by Wageningen University

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