



Background

The Great War saw the introduction of new technology and weapons. Some were designed to break the deadlock caused by trench warfare. Others actually contributed to trench warfare in the first place!

The British Trooper

When the war began in 1914, there was much talk in the newspapers about cavalry charges that would sweep away the enemy. This remained an important idea in the thinking of the commanders until 1916, both sides believing that they could use their cavalry if they could only break through a big enough section of the enemy trenches. After the battles of Verdun and the Somme in 1916, such hopes faded.

Warfare changed and the soldiers who fought in it had to adapt. The key trooper was not now the cavalryman, but the infantryman. His kit now included the rifle and the digging tool. Without his trenching tool, he would have been an easy target for machine guns, shells and artillery. The kit of the British Tommy was a sign of the type of war that was to be fought.

Railways

The Great War was the first to be fought between fully industrialised nations. They were able to make powerful weapons and to move and supply troops on a scale that no one could have imagined a hundred years earlier.

Railways had a significant effect on the character of the war. They allowed governments to move troops, guns and supplies far more quickly than ever before. In the last few days before the war, governments rushed to send troops towards their borders.

Once armies had settled into position, railways kept them supplied with food and ammunition. If attackers ever managed to break through, the defending army could quickly bring up reinforcements by rail and plug the gap. For all these reasons, railways helped the war to drag on for four long years.

Aircraft

Civilians saw the great zeppelin airships that dropped bombs on British towns and cities. Soldiers at the front were more familiar with the smaller balloons used for observation and with aircraft.

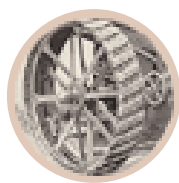


Image 1

A British military aircraft used mainly for artillery observation

(Catalogue ref: AIR 1/2411/303/4/20)

In the earliest days of the war, pilots of enemy aircraft used to salute each other as they



passed in the air. This did not last for long. It became obvious that planes gathered valuable information about the enemy and they had to be destroyed. At first, pilots took pistols with them and shot at each other in the air. Then the planes were armed with machine guns, but these only became effective in 1915 when each side found a way of timing the shots so that they did not shoot off their own propellers! The most famous of all the fighter pilots in the Great War was the German, Manfred von Richthofen, the 'Red Baron'.

As the war went on, planes were used to drop bombs over the enemy, usually with little accuracy. By the end of the war, Britain and Germany had built special aircraft that could fly long distances carrying a heavy cargo of bombs. British inventors had also devised effective bomb-sights that allowed more accurate attacks. The age of the bomber had arrived.

Artillery

Artillery killed more people than any other weapon between 1914-18. The biggest guns used in the Great War could fire shells as large as a soldier. The troops were terrified of them. Men watched their fellows being blown apart or dreadfully wounded by shrapnel. They lived in fear that their turn would soon come.

Generals ordered artillery to bombard enemy trenches for hours on end before sending their own troops 'over the top' to attack. The idea was that the artillery would kill many enemy soldiers, terrify others and destroy barbed wire defences and machine gun positions. In fact, enough enemy machine guns usually survived to mow down the infantry when they finally attacked. In many ways, artillery fire made it even harder to attack enemy trenches as it destroyed all cover and created the famous barren landscape of blasted trees and shell holes that was known as 'no man's land'.

At the start of the war, Britain had real problems in supplying ammunition. As the war went on, Britain greatly improved its supply of guns and munitions. This was partly because hundreds of thousands of women worked in factories to produce the ammunition that was needed. Britain also relied heavily on the USA to supply shells and machines for making weapons.

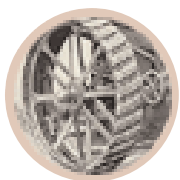


Image 2

A British 60 pounder field gun (that fired a shell weighing 60 pounds), used to destroy enemy fortifications and guns
(Catalogue ref: MUN 5/124/1000/45)

Poisonous Gas

In their search for a weapon that could break the stalemate on the western front, generals turned to a frightening new weapon - poisonous gas. On 22 April 1915 near Ypres, the Germans released chlorine gas from cylinders and allowed the wind to blow the thick, green vapour across to the Allied trenches. The first to suffer were Algerian soldiers of the French army. Their throats burned, they spat blood and struggled to breathe. Thousands died.

As the war went on, gas technology developed. Gas masks were issued. Gas-shells were fired into trenches. Both sides used new gasses, which could blister skin, eyes and lungs. Gas did



not help either side to win the war, but soldiers came to see it as a terrifying weapon and a sign that war had changed forever.

Over 60 different types of gas were used. It was the hardest of all the weapons to control. No matter how gas was delivered, a change of wind direction could blow it back at the side that had used it. Even when an attack had finished, gas could be dangerous. Mustard gas soaked the trenches and could cause blistering for days afterwards. Although relatively few soldiers were killed by gas in the war, others found that it caused long-term health problems and even helped to kill them over forty years later.

Tanks

In 1916, a strange new armoured vehicle appeared. This British secret weapon looked like a huge water container, so it was given a suitable code name - the 'tank'. Tanks had many faults, but they showed that 20th century wars needed the skill of mechanical engineers as much as the courage of soldiers.

The idea for a vehicle that could roll over rough ground, break through barbed wire and crush machine-gun posts had been suggested soon after the war began. When the army showed little interest in this idea, Winston Churchill used money from his navy department to pay for early experiments.

When Field Marshal Haig finally used tanks at the battle of the Somme in September 1916, he was criticised for not waiting even longer. By using the tanks, he gave away the secret and the Germans quickly prepared anti-tank weapons. Some said Haig should have waited until a huge number of tanks were ready so that a massive surprise attack could burst through the German lines.

Britain kept trying to develop better tanks, but they remained unreliable and slow. At the start of the Battle of Cambrai on 20 November 1917, Britain had 378 tanks. By 23 November, only 92 tanks were still working. On 8 August 1918, 534 tanks went into action at the Battle of Amiens. Four days later, only six were fit to fight. Tanks helped to end the stalemate in the last year of the war, but they were not decisive.