**WORLD WAR 1: THE WAR, WEAPONS AND TECHNOLOGIES**

*1.2 Актуальные вопросы исторических наук*

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The World War 1 also known as the Great War, was a global war that incorporated the use of weapons and warfare tactics to cause damage to the enemy whilst limiting excessive loss of lives and property. The First World War was a new age in warfare and drew the line between the 19th and 20th centuries. It marked the entrance of the world into civilization with its very many technological frontiers especially in warfare. It was not called the Great War only due to the very many casualties, neither was it because of the belligerent nations. It was also due to the “Show of Arms” encountered during the war. The war was characterized by the use of new technology, designed machinery and tactical innovations such as the gruelling trench warfare. It served as an open door to the development of these nations, it created a pathway to technological development and laid a new template for warfare.

World War 1 led to a major breakthrough in warfare machinery and technology generally. In modern warfare, new weapons such as submarines, airplanes, tanks, long range artillery and field telephones, flamethrowers debuted in the Great War or had their precursors invented. There is a noticeable transition in these weapons. For example, Cannons were slowly replaced by machine guns during the war. These weapons combined with good tactics were causes of destruction to the enemy, putting lives at risk, decline in economic, industrial, political sector and military deterioration.[[1]](http://www.infoplease.com/us/military-affairs/world-war-i-weapons-and-technology/) These setbacks despite who won the war affected all the parties in the war posing problems for the involved countries. These weapons and technology used in the war can be classified in two ways:

1. Based on mode of transportation and strategic route used; Ground Warfare, Naval, Aviation.
2. Based on type of material, ammunition or technology used; Electrical, Mechanised, and Chemical warfare.

Ground Warfare: World War 1 began as a clash of 20th century technology and 19th century tactics, a huge contribution to the many losses. Ground Warfare comprises of telephone, wireless communication, armoured cars, tanks and chemicals. These coupled with tactical formations and excellent positioning of armed forces led to the success of ground warfare. The most popular and gruelling ground warfare is the use of trenches themed trench warfare. Despite all the new technology being introduced, much of the war was fought in trenches, especially in the western front, leading to huge casualties. Its presence and use lead to the emergence of trench railways as a means of food and ammunition transportation to soldiers. A popular deadly trench is the “Suicide Ditch” as popularly called by British soldiers. The trench warfare was a major cause of tactical stalemate.[[2]](https://www.firstworldwar.com/features/trenchlife.htm) Artillery of various kinds were also in use with the deployment of the indirect fire a tactical system that involved the use of cannons, machine guns and mortars. The idea was to draw out an enemy’s location. Counter-battery missions were as well commonplace during the war, they were combined with indirect fire to spot the enemy. Tanks and armoured cars were also used, majorly to protect soldiers as they travelled dangerous routes, and to facilitate transportation. Field telephones were used to also locate enemies.[[1]](http://www.infoplease.com/us/military-affairs/world-war-i-weapons-and-technology/) Chemical weapons such as flamethrowers and use of gases like phosgene and mustard gas etc. also came into limelight at this period of time, leading to the use of gas masks by soldiers. These were the major ground warfare equipment and tactics and they are all grouped into electrical (field telephones), mechanical (trenches guns and counter batteries) and chemical (gases and flamethrowers).

 Naval: The major naval technology used during the course of the war and which debuted during the war were submarines. But, during the course of the war other naval equipment such as hydrophones, anti-submarine weapon and blimps came into light.

Aviation: The First World War opened doors to the use of planes, with the start of “dogfight” a term used to describe a battle between two opposing planes. Planes were used for spying, delivery of bombs, spotting and ranging. Later during the war, fighter aircraft (loaded with machine guns and even canons) were introduced.[[1]](http://www.infoplease.com/us/military-affairs/world-war-i-weapons-and-technology/) Observation balloons were used to check human location, especially to observe trenches and were useful in spotting of aircraft in cases of air-to-air combat.

 The weapons used in the Great war influenced it greatly. In fact, it led to a sort of competition known as (arm race), between the nations involved particularly, the industrial nations: Britain, France, Germany, the USA, the Russian Empire, Italy, japan and Austria-Hungary. Ground warfare was the major driving force of the war and the use of indirect fire was topped by Germany who employed the use of 6 inches and 8 inches howitzersand Minenwerfer*.* They even had possession of the biggest gun in the world at that time (Lange Max) with very wide ranges. This gave them an upper hand in the war ahead of France and Britain who had guns of typical measurement 3 inches and 4 inches. The arm race of course was detrimental to the economy and the society at large but, advantageous to certain companies involved in weapons trade such as Krupp, a German company known for production of artillery, ammunition and armaments. Even protection instruments were created such as steel helmet, the production of this was pioneered by the French who introduced the Adrian helmet in 1915, followed up by the British Brodie helmet worn by British and US troops and the German Stahlhelm.[[3]](https://encyclopedia.1914-1918-online.net/article/artillery) Railway guns were another reason for weapons competition, with the Germans up front again. These were notable German railway guns that used shells for ammunition like Big Berthasand Paris Gun. The bright part about this particular contest is the fact that it opened an unforeseen trend, with the British manufacture of machine guns like the Vickers Machine gun (manufactured by Vickers Maxim, another profiting company from the arms business). This use of machine guns and other shell guns coupled with trenches, led to the creation of tanks by the British and the French, the start of mechanised warfare which was aimed at protection from fragmentation shells. This, took some time and mechanical reliability caused an issue. More and more weapons were invented such as the flamethrower innovated by the German army and later adopted by other forces. Although it was not as much effective, it played a role in demoralising weapons. Chemical warfare and small-scale bombing were limited both in amounts and effect due to The Hague conventions of 1899 and 1907 which reduced potential damage and loss of properties from bombings which could have occurred during the war although gases like mustard gas and phosgene were used to weaken the enemy.[[4]](http://ww1.habsburger.net/en/chapters/first-world-war-and-law-war-effect) Naval weapon competition was another uprising, with the Germans using submarines called U-boats, which seemed almost invulnerable and was a precursor to the production of hydrophones in 1917, blimps and depth charges. All these are still in use today, for marine exploration and for off shore research. Aviation was yet also another cause of arm race, with British and German forces creating strategic bombers, before the Germans expanded the horizon with the creation of Zeppelinswhich were significant in air-to-air combat. This was met by tactical combinations of aircraft carriers like the HMSFuriouswhich launched fighter planes called Sopwith Camels*,* in a raid to destroy Zeppelinhangars.[[5]](http://www.tondernraid.com/tonder.htm) Despite all of this, there was still uneven distribution of weapons amidst nations in the war, probably due to little resources, underdeveloped industries or political and economic setbacks etc. either ways, the weapon supply of each nation differs and has a huge impact on their actions during the war especially for the hostile countries of the war. Off-field, this also goes a long way to affect the economic industrial and political situations of these countries for example, the production of tanks and armoured cars by Britain was stimulated by the adverse effect of shell fragmentation on their lands, in their country and soon their economy. Another blow was the use of primitive weapons by the Germans and Russians at the later stages of the war due to destructive consequences.

In conclusion, the Great War has been a reason for advances technologically both in in-war and off-war scenarios. With what has been stated earlier in the introduction and in the war, it is very clear that despite the lives lost, the properties destroyed and left derelict, the unresolved ties and the diminishing reputation of the “beaten” nations, it has paved a way into a new world of warfare, technology, innovation, transportation and security. Above all, the First World War is the bedrock of the revolution of the 20th century.

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