



**SUPPLY  
LINE**

Artifact Backgrounder

# Trench Periscope

## DEFINITION

The **trench periscope** is an optical device that soldiers used during the First World War to observe the ground in front of their trenches and fortifications, without taking the risk of raising their eyes above the parapet and creating a target for enemy snipers.

## DID YOU KNOW?

Some armies used larger, more specialized periscopes. For example, the German optical manufacturer Zeiss produced a telescopic periscope, equipped with powerful magnifying lenses. It could be extended to 25 metres, or completely collapsed and mounted on a compact field carriage for transport.



# HISTORICAL CONTEXT

The first battles on the Western Front were highly mobile operations, fought over open ground, much as in the 19th century. This fighting caused hundreds of thousands of casualties, and by the end of 1914 both the Germans and Allies were exhausted. They needed to recruit more soldiers and replenish equipment and supplies. In the meantime, each of the armies dug in deeply, protecting their positions with barbed wire, machine guns and artillery. This phase of the conflict — known as trench warfare — persisted until early 1918. Compared to the opening clashes of 1914, trench warfare was relatively static. The fortifications were so strong that battlefield gains were often measured in hundreds of metres rather than kilometres.

As of early 1915 soldiers on the battlefield were spending most of their time inside trenches and underground shelters called dugouts. Such conditions posed special challenges related to observation. Sentries needed to be able to watch over no-man's-land to warn of enemy attack. Artillery observers needed to be able to scrutinize enemy positions to identify targets and to gauge the accuracy of gunfire. However, a soldier who raised his head above the trench parapet to observe made himself a target for enemy fire. Resourceful soldiers looked to submarine periscopes for a solution.

# EVOLUTION/DEVELOPMENT

Early **trench periscopes** were made by installing two mirrors at 45-degree angles at either end of a long box or tube. During the winter of 1914–1915, soldiers on the front lines used these improvised box periscopes, also known as hyoscopes. Most measured between 30 centimetres and 100 centimetres in length.

In early 1915, commercial manufacture of box-type **trench periscopes** began in the United Kingdom. However, demand exceeded supply until 1916. To make up for the shortfall in commercial supply, British Army workshops behind the front lines started to manufacture **trench periscopes** in mid-1916.

# VOCABULARY LIST

## **No-man's-land:**

The ground that is situated in between the forward trenches of two opposing armies. Since neither army occupies or fully controls that space, it has come to be known as no-man's-land.

## **Parapet:**

A barrier which is an extension of the front (enemy-facing) wall of a trench, and offers some protection to the soldiers who are situated in the trench.

## **Sentries:**

Soldiers responsible for keeping watch over specifically defined areas on the battlefield, or to guard prisoners or other important locations, such as headquarters, near the battlefield.

**Telescopic:**

An adjective describing a tubular device that is made up of several concentric sections that can be extended to full length or compressed upon each other for compact storage.