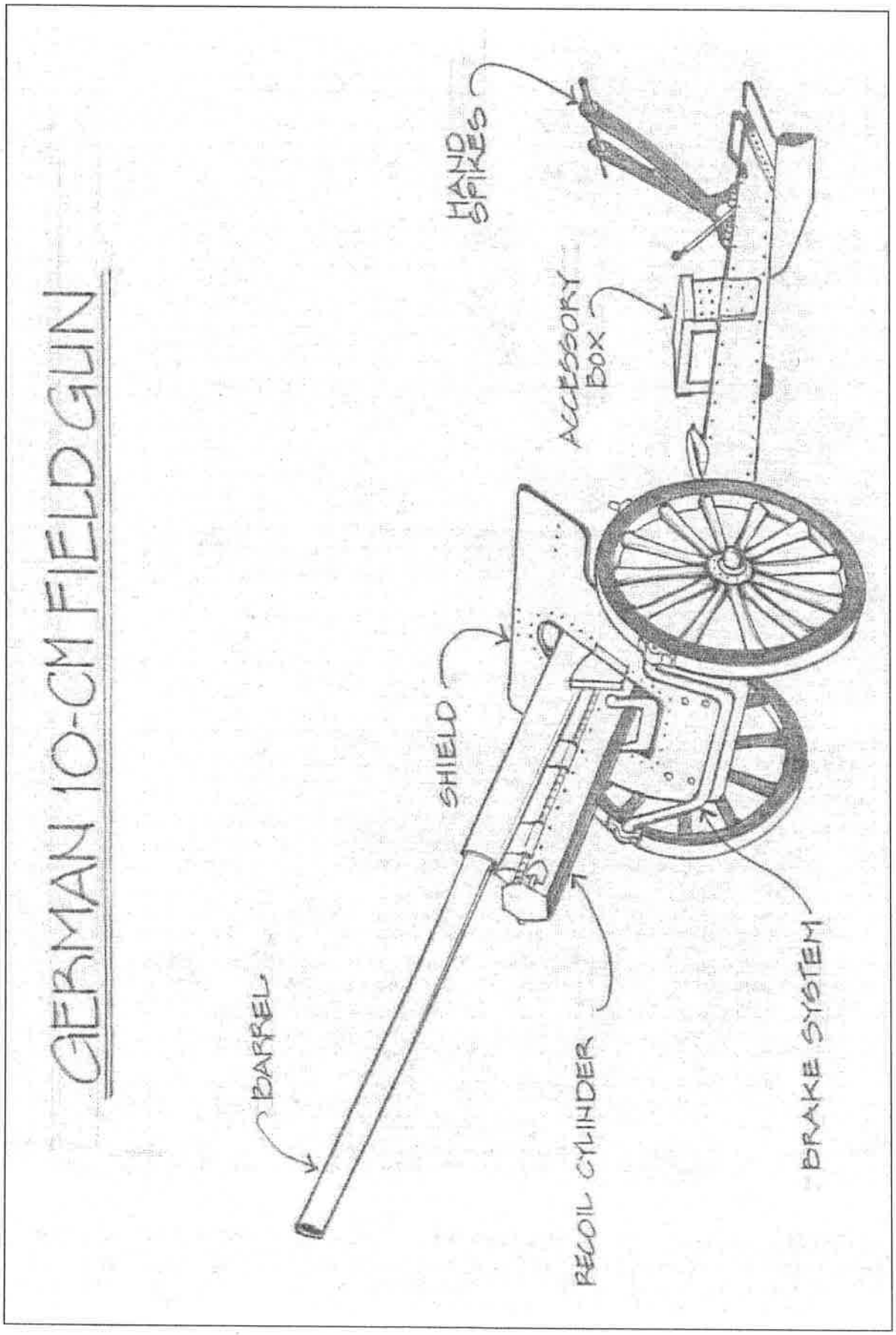
Artillery Diagram



Artillery

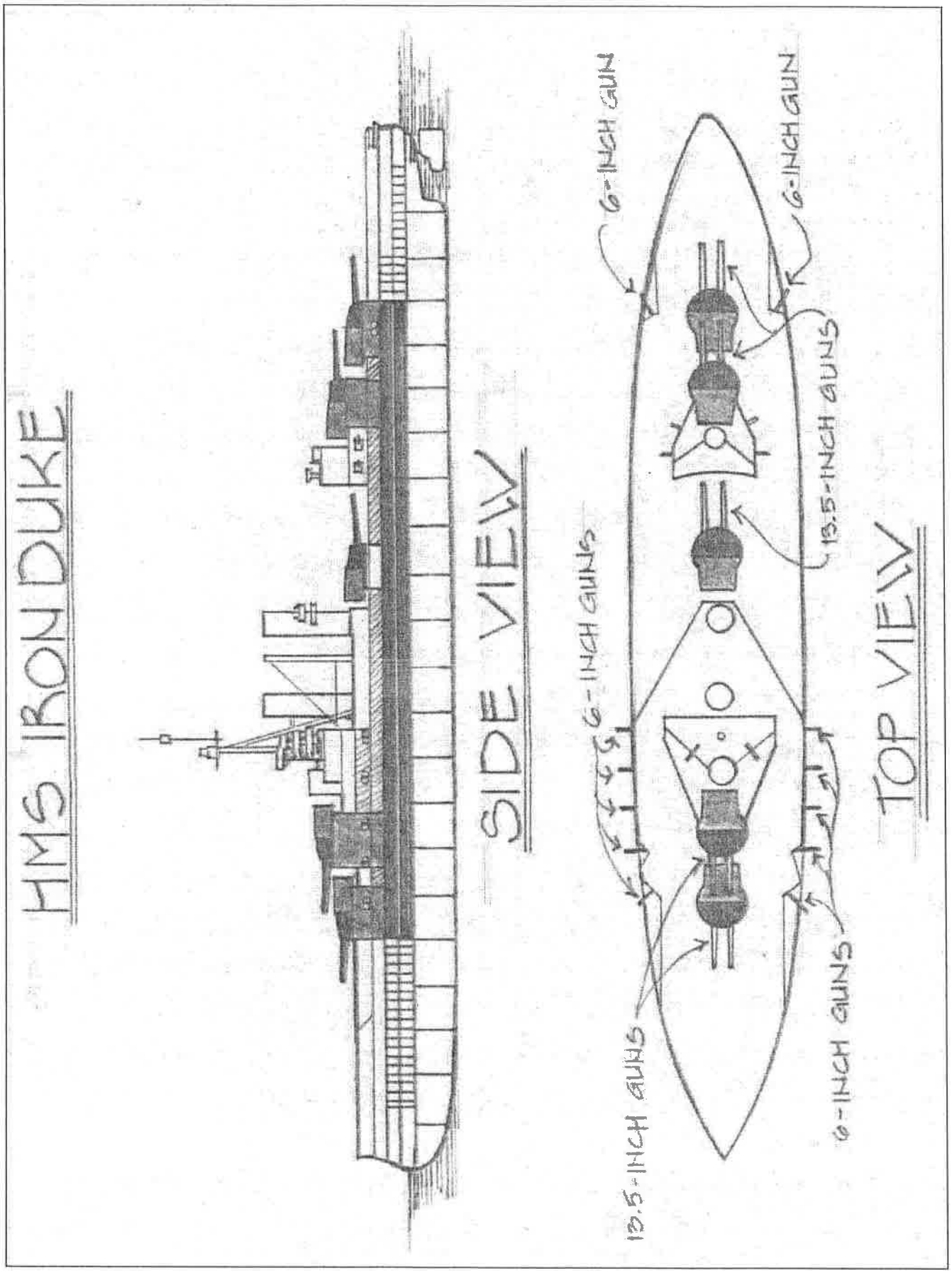
Isonzo was a series of battles that began in 1915 and took place along a river between Austria-Hungary and Italy. It seemed as if Italy, which had many more soldiers, would have an easy victory. However, although Austria-Hungary had fewer men, it had more heavy artillery. Also known as "big guns," this artillery was loaded with highly explosive shells containing dozens of small lead balls. With each battle, the Italians suffered more casualties from the artillery bombardment. After these early setbacks, the Italian commander realized that big guns were important both before and during successful army advances.

Estimated Casualty Statistics for the Battles of Isonzo

Allied Powers: 1,022,000

Central Powers: 451,000

Battleship Diagram



Battleship

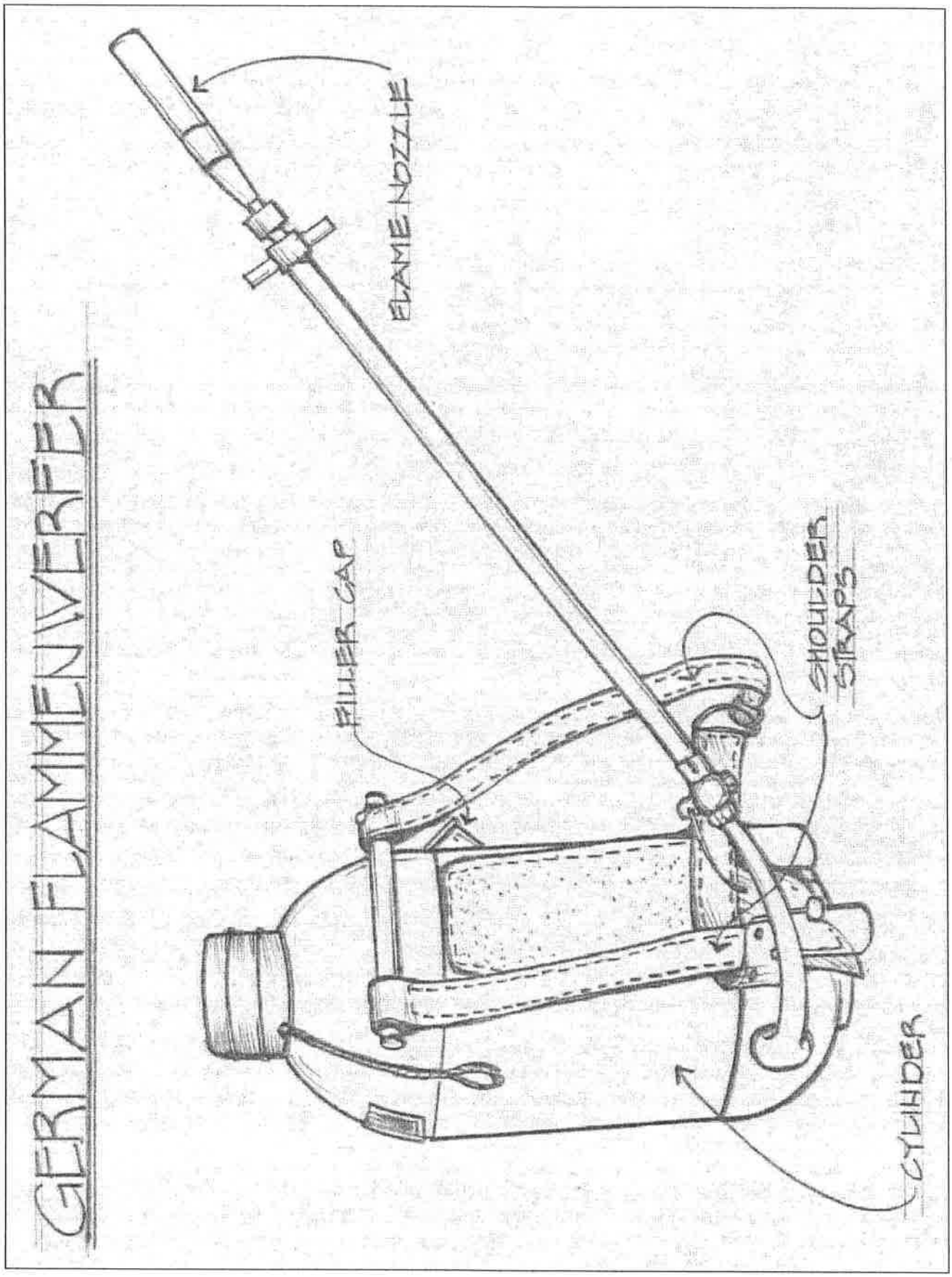
The Battle of Jutland in 1916 was one of the largest naval battles in history. The British had a fleet of 151 battleships, while the Germans had only 99 battleships. A battleship would speed around, trying to trick the enemy ship into coming closer. Once the enemy ship was close enough, the battleship would fire its big guns. If effective, the attack would cause the enemy ship to sink. At Jutland, the British lost more ships than the Germans did, but many of the remaining German ships were seriously damaged.

Estimated Casualty Statistics for the Battle of Jutland

Allied Powers: 7,000

Central Powers: 3,000

Flamethrower Diagram



Flamethrower

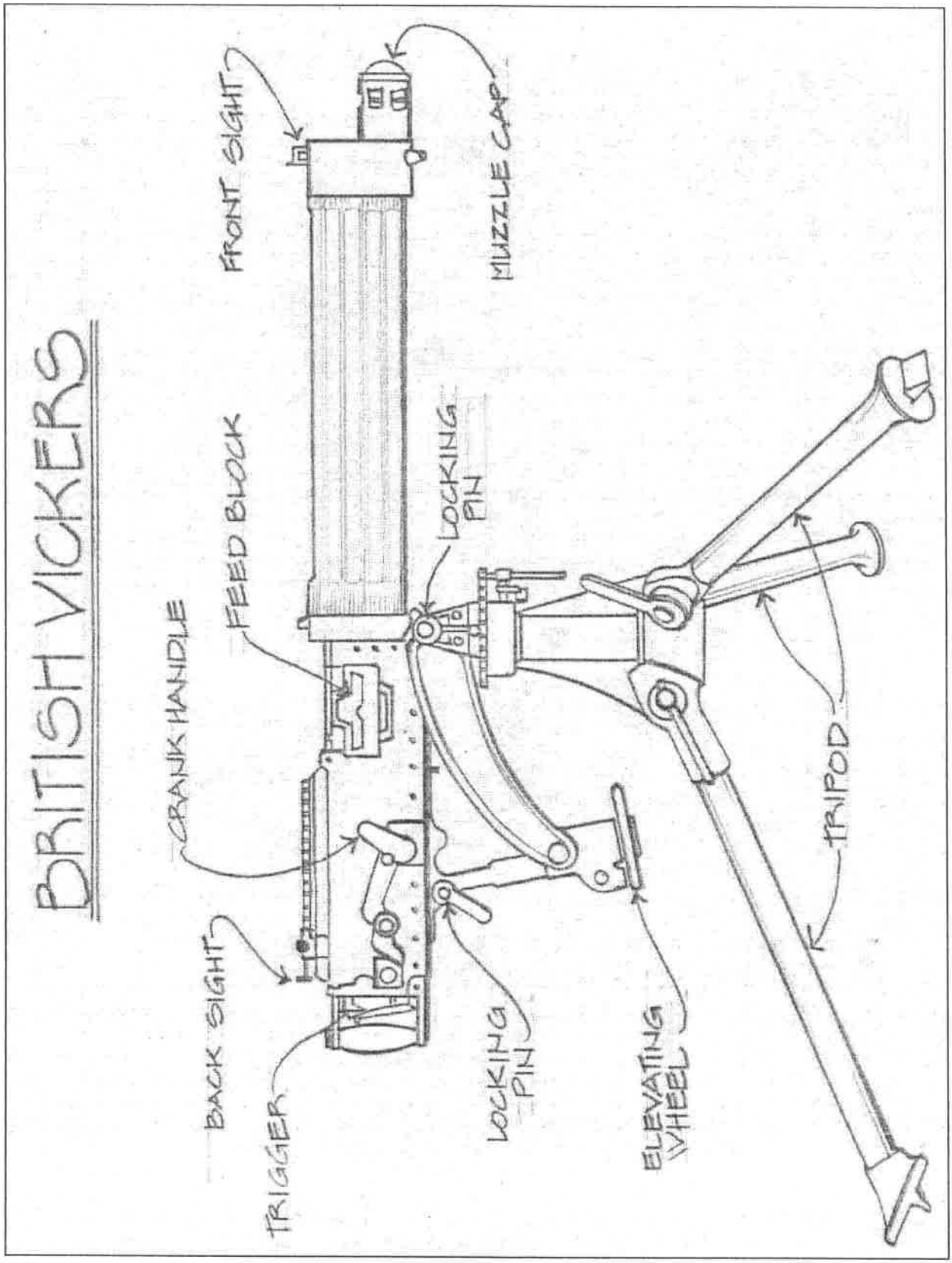
The Battle of Verdun, which began in February 1916 and lasted nearly ten months, is considered to be the longest battle of World War I. Early in this battle, the Germans introduced a new kind of flamethrower that consisted of a gas canister strapped on the back of a soldier. Attached to the canister was a nozzle that was lit on fire and that sprayed burning fuel on its victims. The Germans used this weapon to clear the area of enemy soldiers before the main army advanced. This weapon was dangerous not only to the enemy but also to the soldier operating it, because it was highly explosive. Even with this weapon, the Germans still suffered heavy casualties.

Estimated Casualty Statistics for the Battle of Verdun

Allied Powers: 362,000

Central Powers: 336,000

Machine Gun Diagram



Machine Gun

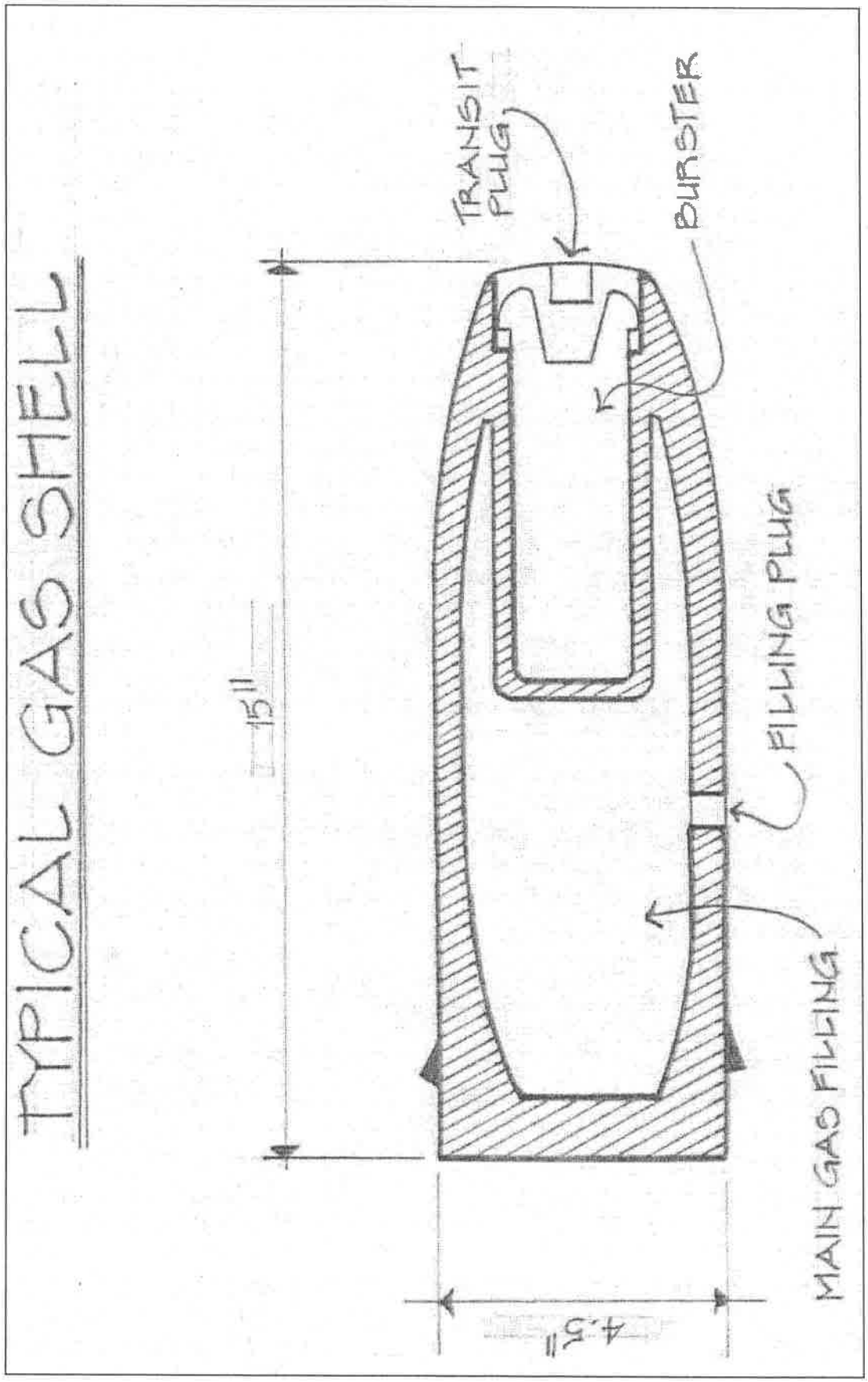
The Battle of the Somme in 1916 was a disastrous attempt by the British to attack the Germans in their trenches. The British created a plan that relied on bombardment by large, heavy artillery to weaken German defenses before the army advanced. Unfortunately, this plan did not go as hoped. The advancing British army was an easy target for the German machine guns, which could fire 400 to 600 rounds per minute, spraying the approaching enemy with a massive amount of bullets. In the first day alone, the British lost an estimated 58,000 soldiers.

Estimated Casualty Statistics for the Battle of the Somme

Allied Powers: 693,000

Central Powers: 420,000

Poison Gas Shell Diagram



Poison Gas

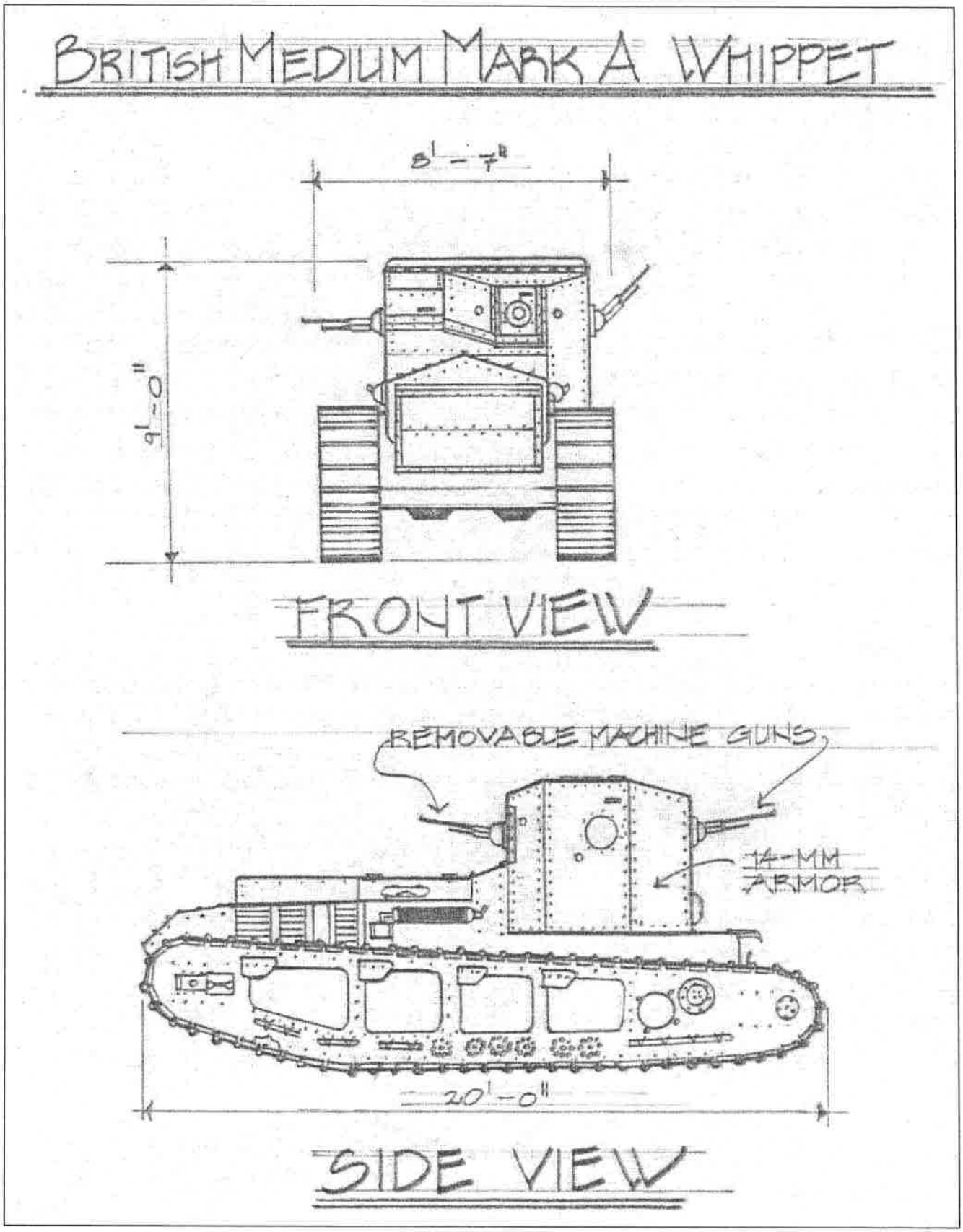
The first notable use of poison gas was during the Second Battle at Ypres in 1915. One evening, the French and Algerian troops noticed a strange, yellow-green cloud moving their way. They thought it was an attempt by the Germans to cover an advancing attack. Instead, the cloud was full of chlorine gas, which caused severe choking. By the end of the war, both sides were experimenting with different types of poison gas and different ways of getting it into enemy trenches. At the Third Battle of Ypres (also known as Passchendaele), the Germans used mustard gas, which caused chemical burns that left lifelong injuries—both internal and external.

Estimated Casualty Statistics for the Battle of Passchendaele

Allied Powers: 509,000

Central Powers: 348,000

Tank Diagram



Tank

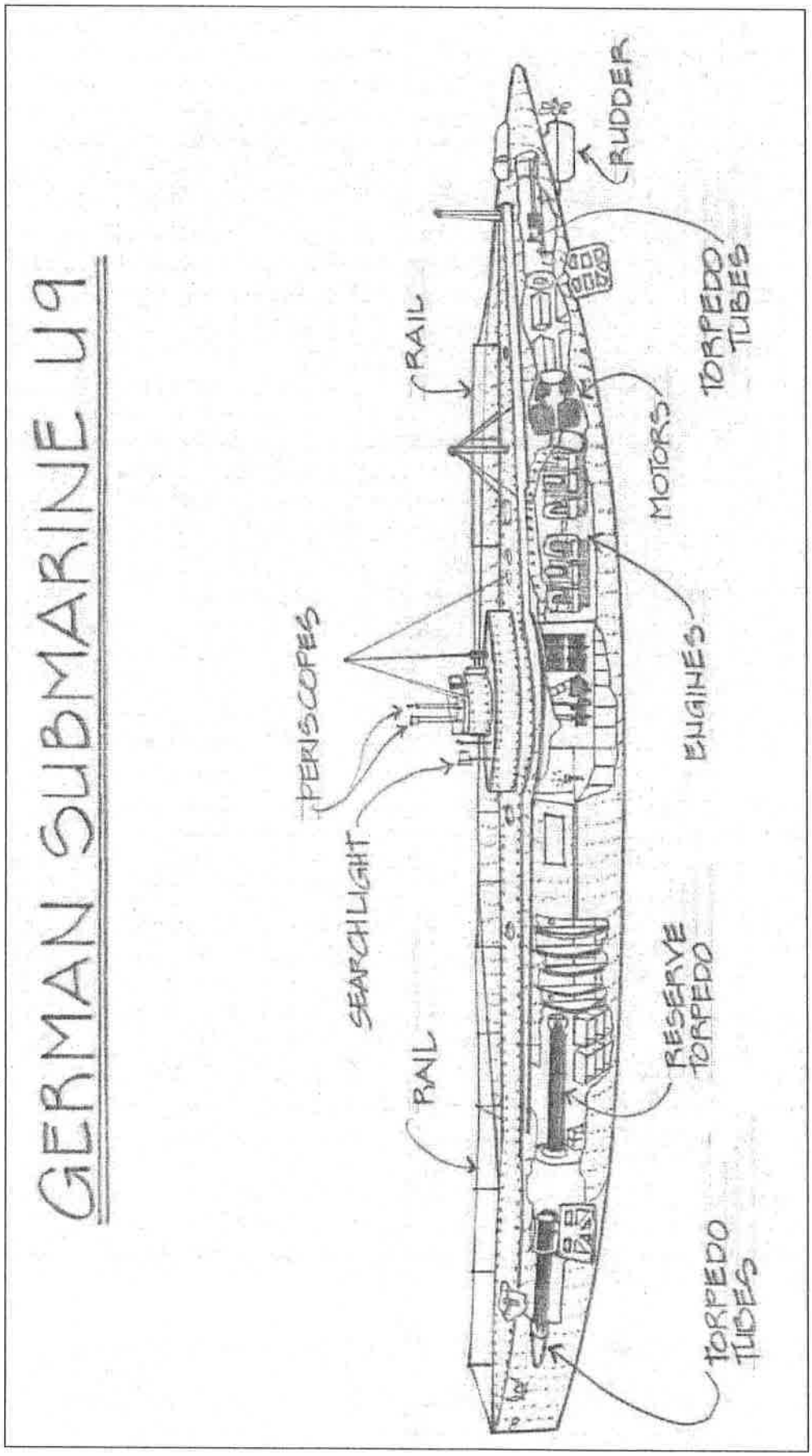
Although debuted by the British earlier in the war, the tank was first used effectively in combat during the Battle of Cambrai in 1917. At Cambrai, British tanks were able to cross the area between the British and German trenches. The tank's protective metal kept the men inside from falling victim to the onslaught of enemy machine guns. The heavy tank crushed everything in sight, including the dangerous barbed wire guarding the trenches. Some 8,000 German prisoners and 100 guns were taken.

Estimated Casualty Statistics for the Battle of Cambrai

Allied Powers: 45,000

Central Powers: 45,000

Submarine Diagram



Submarine

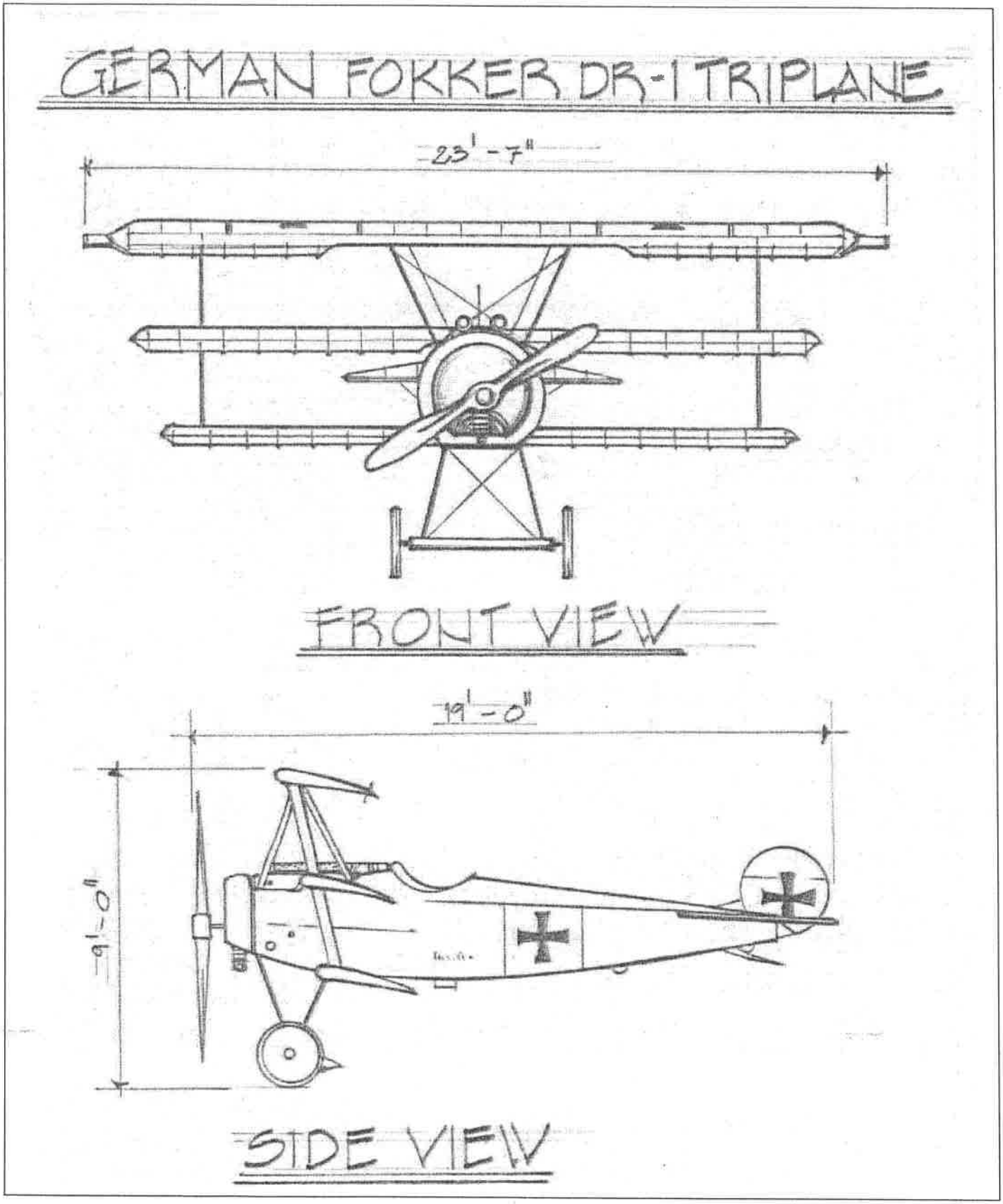
The Germans used submarines, which they called U-boats, throughout the war. The sinking of the *Lusitania* and other nonmilitary ships by German U-boats eventually brought the United States into the war. The Allies also used submarines. During the campaign at Gallipoli that began in 1915, the Allies used submarines to stop Turkish sea traffic and to bombard the shore. This activity was an important support to the land attack, though the Allies ultimately lost the campaign.

Estimated Casualty Statistics for Gallipoli

Allied Powers: 205,000

Central Powers: 252,000

Airplane Diagram



Airplane

The Battle of Tannenberg in 1914 was an important victory for the Germans. They stopped the Russian army from advancing into German-controlled territory. Prior to the outbreak of fighting, both sides sent airplanes to gather details about their enemy. The Russian commander made a costly mistake by ignoring the warnings provided by his pilots. After tremendous losses at Tannenberg, the Russians did not make the same mistake again. Airplane missions were an important source of information for both sides throughout the war.

Estimated Casualty Statistics for the Battle of Tannenberg

Allied Powers: 267,000

Central Powers: 80,000