

THE GERMAN TANK "ELFRIEDE."

DESCRIPTION (see Fig. 1).

The German tank "Elfriede," the first to be captured, can be described as an armoured "caterpillar," carrying a 6-pdr. gun and 6 machine guns. It can travel across ordinary country (cornfields, roots, etc.) as fast as a trotting horse, but can neither cross an 8-foot trench nor climb a 4-foot bank.

Parts of the tank.—The *framework*, on which is built up the armour-plated body.

The two *tracks* or "caterpillar" *belts*, below the framework, one on either side of the tank.

The two *engines*, placed side by side in the centre of the framework and covered in by light plating. In front and behind the engines are the radiators and the oil tanks. There are two petrol tanks, between the tracks, in front of the forward radiator. From each engine runs a driving shaft to the large gear case in front of the rear axle.

The *body*, divided into a *front* and a *rear compartment* connected by *passage ways* on either side of the engines. The floor is continuous throughout. In the roof, two *louvres* are provided for the purpose of ventilation. These consist of three layers of steel slats, spaced so as to admit a current of air.

The *cab*, or *O.P.*, which projects 2 feet above the roof of the tank.

Over-all dimensions.—Length 24-ft.; width 10-ft. 6-in.; height 11-ft.

Weight.—40 tons approximately.

Speed.—Maximum speed on level ground for a short distance, 8 to 10 m.p.h. (say 1 mile in 6-7 minutes).

Armour.—Front of tank, $1\frac{5}{8}$ -in.; sides, $\frac{5}{8}$ -in.; rear, $1\frac{3}{8}$ -in. Front of cab, $1\frac{3}{8}$ -in.; sides and rear, $\frac{5}{8}$ -in. Loophole covers, $1\frac{3}{8}$ -in.

Armament.—One 5.7-cm. (6-pdr.) Q.F. gun, on pivot mounting, firing through a loophole in the front of the tank and protected by a shield.

Six heavy ('08 pattern) machine guns, on shielded pivot mountings, firing through loopholes, 2 on either side of the tank and 2 in rear.

Four rifles are carried in a rack in rear of the radiator.

Ammunition.—The gun fires 3 kinds of ammunition:—

- (a) Armour-piercing H.E. shell with delay action fuze.
- (b) Ordinary H.E. shell with delay action fuze.
- (c) Case shot.

Engines.—Two 100 h.p. Daimler 4-cylinder engines of German manufacture. Electric self-starters.

Drive.—One man control; each engine drives one track. There are 2 clutches, 1 change speed lever, 2 brake levers and 2 reverse levers; 3 speeds forward and 3 reverse, each track being driven independently. The tank is steered by turning the steering wheel in the direction required. This throttles down the engine on the required side.

For sharp turns, if the turn should be to the right, the right clutch is disengaged and the right hand track brake applied.

There is an arrangement in the gear case by which one track can be put into forward and the other in reverse, but it is very doubtful if this would ever be required for steering.

Observation.—Exceptionally bad. Neither driver nor officer can see the ground within 10 yards of the front of the tank. The gun and machine guns can be trained on a point about 5 yards away from the tank.

Crew.—Stated to consist of 1 officer and 18 other ranks. According to a prisoner's statement, his tank went into action on the 24th April with the following crew of 22:—

- 1 officer (2nd Lieut.).
- 1 Vice-Sgt.-Major (supernumerary).
- 1 N.C.O. (driver).
- 1 reserve driver.
- 2 mechanics.
- 1 signaller.
- 1 N.C.O. and 2 O.R. gunners.
- 12 machine gunners.

Vulnerable Points (see Figs. 2 and 3).

In front.—The gun shield, the observation loopholes on either side of the gun and the two observation loopholes in the cab.

On the side.—The two machine gun loopholes, and the observation loophole in the cab.

In rear.—The two machine gun loopholes, and the two observation loopholes in the cab.

(All the above loopholes (14 in number) measure $8\frac{1}{2}$ -in. \times $13\frac{1}{4}$ -in.)

Underneath.—The tank is not armoured underneath. The floor is of soft steel $\frac{1}{4}$ -in. thick, and there is no flooring under the engine.

The roof.—Immediately in front of and behind the cab, where the plating is only $\frac{5}{8}$ -in. thick.

Effect of bullets.—The gun shield and all the loopholes are vulnerable against the "splash" of ordinary bullets, that is to say, fragments of bullets splash through the joints of the shields and flaps and wound the crew.

It is known that, during the Villers-Bretonneux attack, our machine gun and rifle fire wounded some of the German machine gunners. Owing to the "splash," they were obliged to keep their heads down and consequently fired wildly.

Effect of artillery.—A direct hit will put the tank out of action, and the crew may be wounded by splinters from shell bursting close to the tank.

Note:—In addition to the pattern of tank described above, the Germans employ other patterns of their own manufacture, as well as captured tanks.

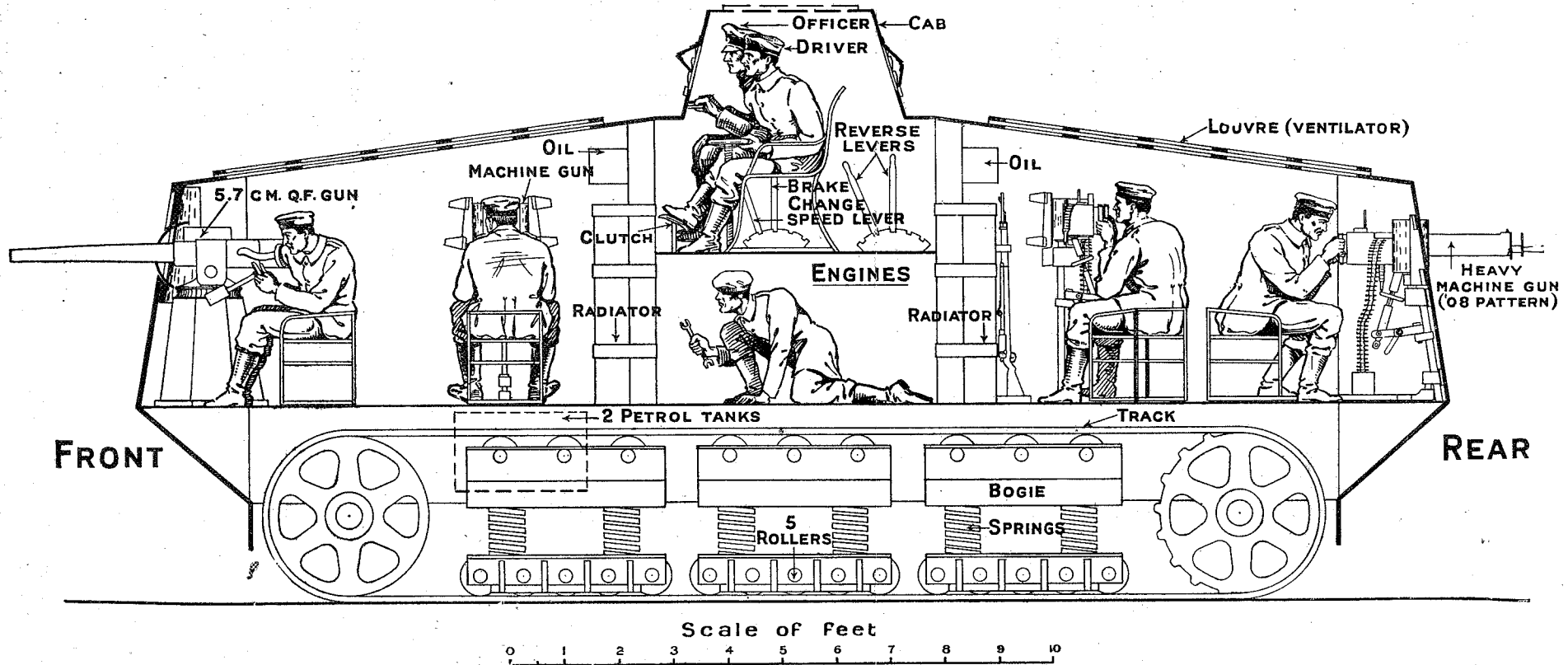
GENERAL STAFF (INTELLIGENCE),

GENERAL HEADQUARTERS.

1st June, 1918.

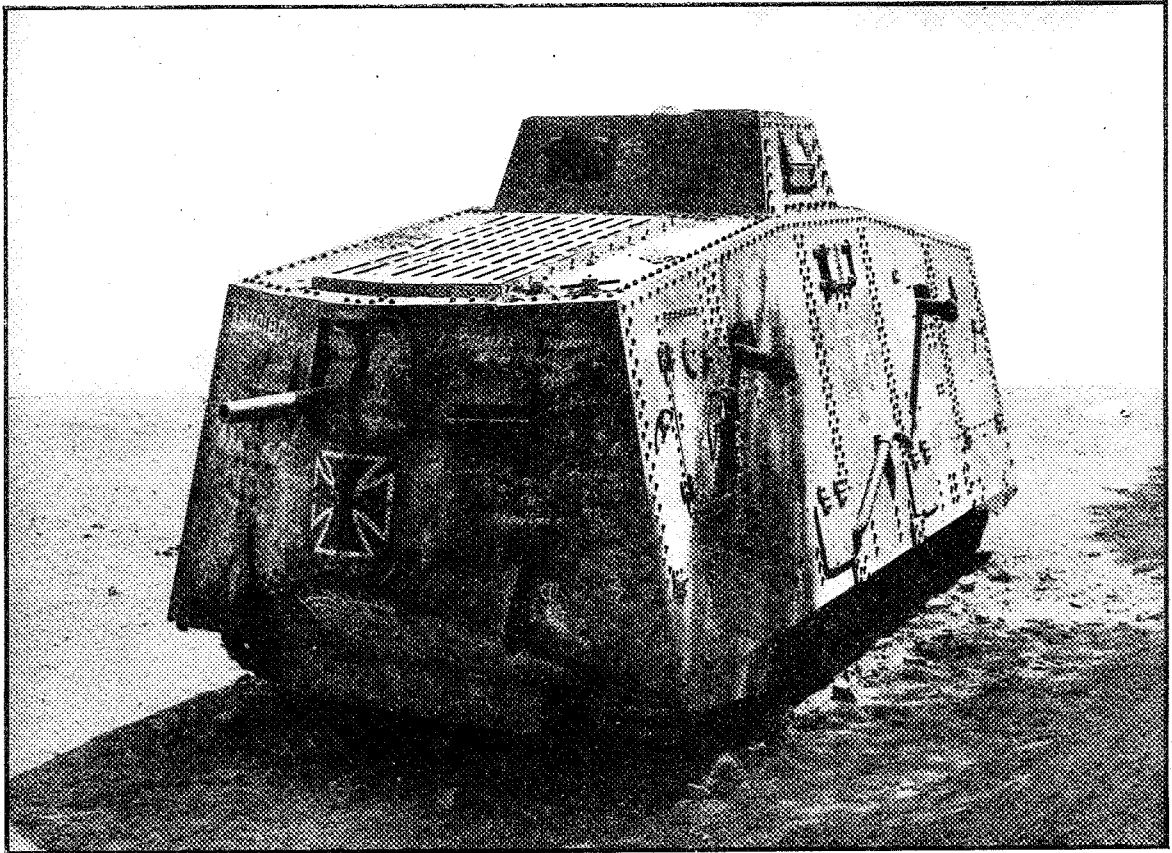
[P.T.O.]

Fig. 1.



VIEW OF INTERIOR OF TANK.

Fig. 2.



THE TANK IS SEEN APPROACHING.

Fig. 3.



BACK VIEW OF THE TANK.