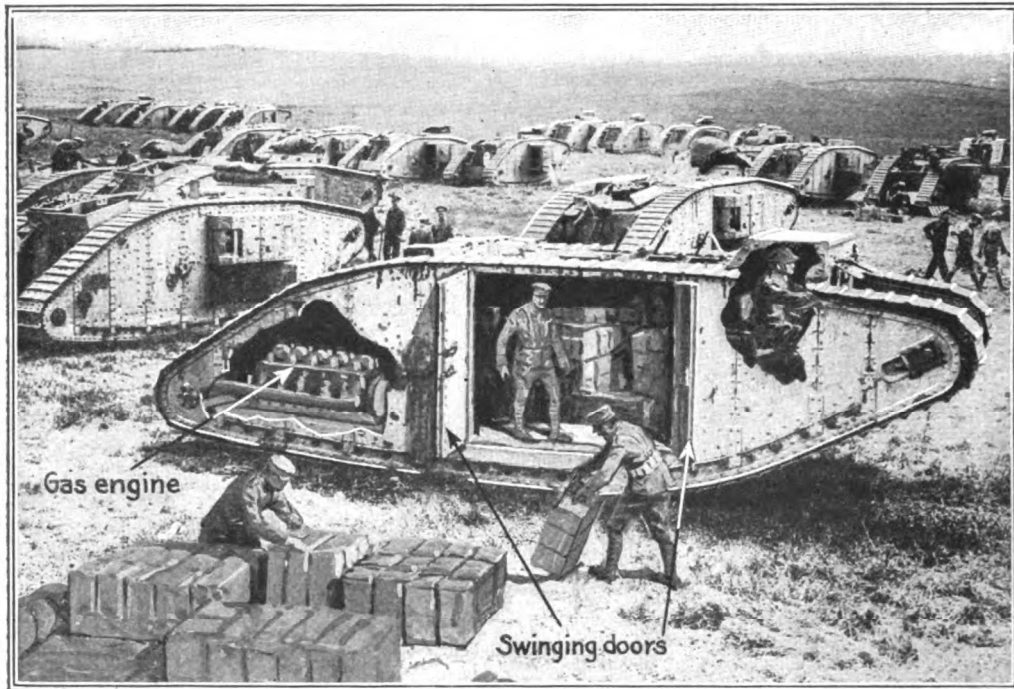


Now Comes the Cargo-Carrying Tank

It crawls across country so as to avoid the fire to which roads are subjected at night

By Joseph Brinker



A British tank on the western front being loaded at the base, some distance back of the line, for its journey to the trenches

EXCEPT in great offensives or retreats such as have taken place this spring, it is said on good authority that more men are killed every night in bringing supplies to the trenches than by fighting. This follows from the fact that the troops are fairly well protected in the trenches when under rifle or machine gun fire and in their deep dugouts when the artillery is in action.

Supplies are brought up as near as possible to the front distributing points by means of motor trucks and horses and then carried across the open fields or in communication trenches by men who have practically

no protection against shell splinters or machine gun fire. The enemy knows the roads by which supplies are brought up because of the information secured by his airplane observers. He plots every yard of a transport road accurately on his maps and then distributes his artillery in such a manner that it has the range down to the last few feet. Even though the roads are generally protected by cleverly camouflaged canvas screens hung on poles, trained observers in airplanes can detect these subterfuges and get sufficient information to enable the roads to be charted with great precision.

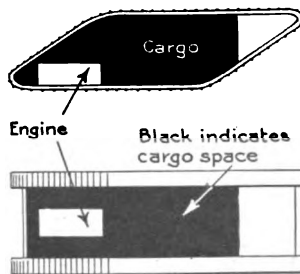
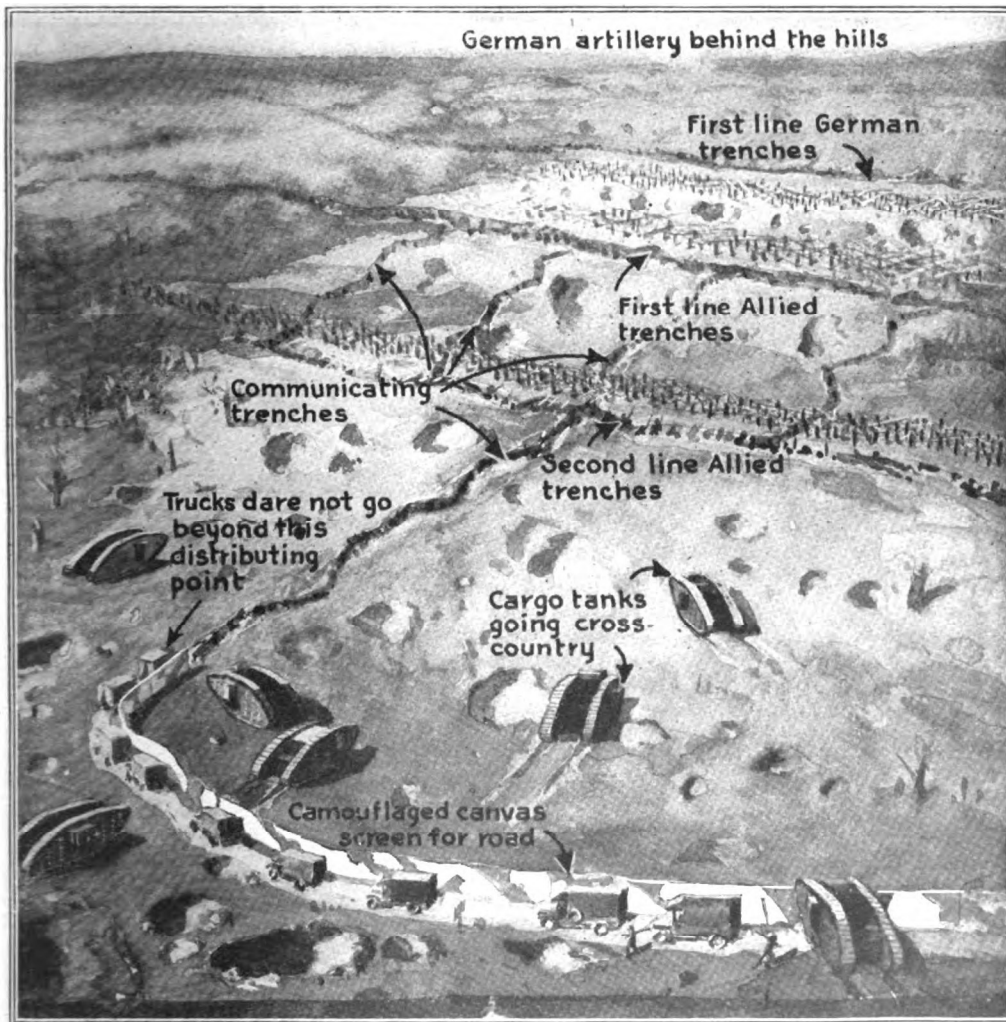


Diagram showing relative space given over to freight

On nights when the enemy has reason to believe that supplies are being brought up, such an intensive fire is rained on these roads that many men, horses and motor trucks are wiped out. Even if there is no slaughter the road is impassable, so that no supplies can be moved forward.

Now comes the cargo-carrying tank, which offers a means of avoiding this great loss. It is not confined to the roads for its progress, but can plow ahead over soft ground, hard ground, and even shell craters or débris which would instantly stop the advance of any ordinary type

of wheeled vehicle. To prevent the bringing up of supplies by cargo tanks, the enemy would have to lay down a barrage many miles long instead of concentrating on any certain roads. Such a barrage would be extremely costly, since the cargo tanks could always select a safe sector for their journey. Even if the area in which the tanks are operating were being shelled, there would be no such loss of life as hitherto, since the tanks would be armored only slightly less than at present. They would be immune to rifle and machine gun fire and splinters and could be put out of action only by a

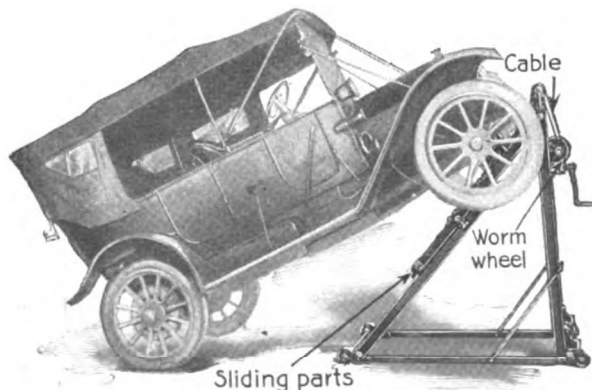


A bird's-eye view of a section of the battle front showing how the cargo tanks would cut across country and avoid the open roads

direct hit and not necessarily even then, for shells are known to have passed clear through tanks and exploded on the other side without killing one of the crew.

The cargo tanks would not differ materially from the present British tanks in principle. They would probably be a trifle larger and protected with slightly thinner armor in order to carry the maximum tonnage consistent with protection from all fire except direct hits. Traveling at from two to six miles an hour, they could be loaded in advance and make the trip of from six or even twelve miles to the rearmost trenches, be unloaded, turn around and work their way back to their bases before the first ray of dawn was breaking on the following morning. And by utilizing the space usually given over to the machine guns, parts, ammunition and twenty-hours' rations for the crew, regularly carried by the fighting tank, at least five tons of goods, or perhaps more, could be transported by each tank. This is as much as is carried by the average motor truck transport, and as much as by two hundred men carrying fifty pounds apiece.

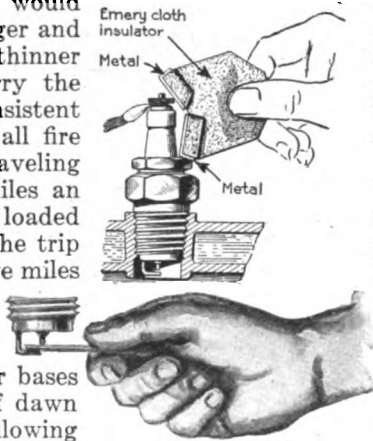
The illustrations show how British tanks are being actually used to carry supplies on the Western front and how they cut across country where motor trucks would be mired.



Combination Spark Plug Tester and Cleaner

MADE of two heavy pieces of emery cloth glued together at one end with two rectangular pieces of copper inserted between the layers at the other, the handy automobile accessory shown in the accompanying sketches serves the dual purpose of testing and cleaning spark plugs.

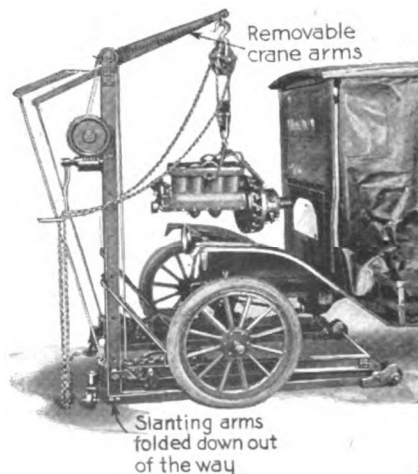
The cloth is cut in a V at the end where the two pieces of copper are inserted. The spark jumps between the inner ends of the two pieces of copper which may be moved closer together or farther apart to determine the value of the spark by the gap it will jump. The cloth end will clean the terminals.



One end of the device is used to test the spark, the other for cleaning terminals

Now It's a Crane and Now a Hoist

WHEN the device shown here is used as a car hoist, the sliding pieces on the arms which engage the car-body are moved up and down by worm-gear wheel operated by a crank. Folding down the slanting arms, and mounting two lifting arms pivoted at the top, changes the device into a crane. It will lift the car off the ground.



Note how easily this convertible crane-hoist lifts the car off the ground so as to make repairs or cleaning easy