

Tanks Uproot Wire Entanglements

By H. GERNSBACK

ONE of the most formidable barriers that the armies in the field contend with is the modern barbed wire entanglement. As is well known, it is almost impossible for charging infantry to move over the intervening no-man's-land when the latter is elaborately equipt with barbed wire. First of all, the advancing men are ready targets for the enemy, and once they come up close to the barbed wire, there is no way of getting over it without the enemy spotting the men, when they can be easily picked off by means of the enemy's rifle fire. In the past, many schemes have been suggested and are in operation, to either clear the barbed wire or else to destroy it. Perhaps the most efficient is the modern barrage which levels and shatters to the ground all entanglements, blowing them to atoms. The objection to this method is that the enemy is served notice of what is coming and immediately con-

chinery is necessitated or will be necessary to carry out the plan. Our front cover as well as the accompanying illustrations depict the idea clearly.

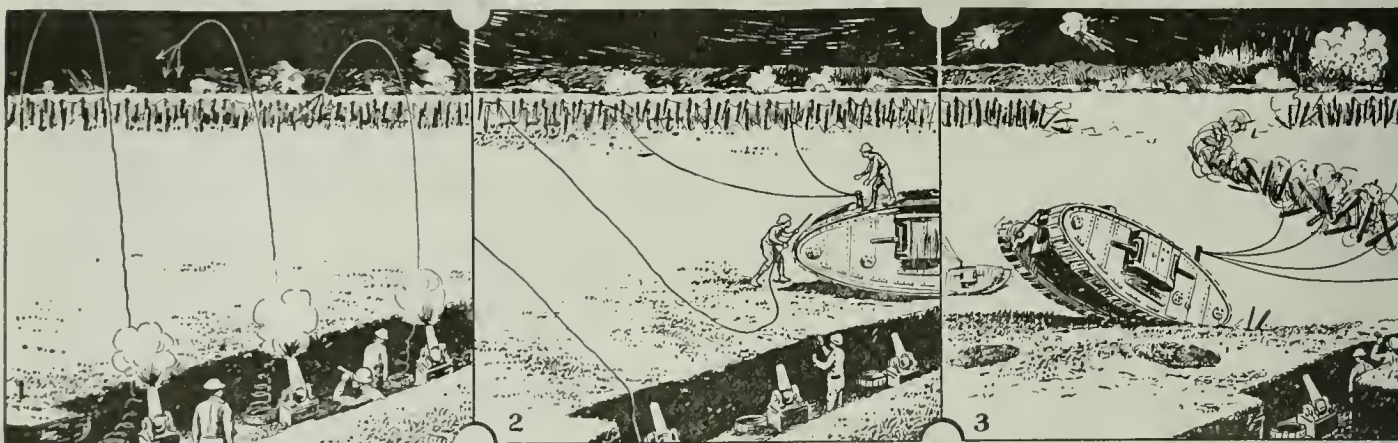
By means of regulation trench mortars, we fire a steel wire in the direction of the enemy's trenches, the end of the wire being equipt with hooks or grapples, as our front cover shows. The firing of a cable of this kind is nothing new, nor is it untried. A similar method was used by the Italians repeatedly in the Alps, and in one case where a connecting cable broke and left a considerable force isolated on the peak of a mountain, communication was again established by firing a steel line over the heads of the marooned men.

After our steel wire has been shot over the barbed wire, all that is necessary for our men to do will be to pull the wire towards them till the hooks become firmly enmeshed in the barbed wire entanglements.

It also goes without saying that the tank which we have illustrated can be replaced by either heavy automobile trucks, or otherwise compound hand tackles (chain blocks), if it is not advisable to use either tanks or automobiles.

In order so as not to give the enemy any information as to what is coming, the trench mortars can be fired in the evening or early morning, and the object can be successfully camouflaged by sending over ordinary trench bombs at intervals. Thus the enemy will have no notice of what is happening, and will take the firing from the trench mortars to be nothing more than the usual daily trench bomb bombardment.

Then at dawn, about half an hour preceding the attack, the tanks can get busy uprooting the barbed wire entanglements, making a wide breach in the defensive system, and within a few minutes after thus clearing an opening, our infantry can ad-



Three Views Depicting a Novel Idea How to Uproot Barbed Wire Entanglements. Fig. 1 Shows Thin Wire Cables to the End of which Are Attached Hooks or Grapples, the Cables Being Shot Over the Entanglement by Trench Mortars as Shown. Fig. 2 Shows the Other End of the Wire Cable Attached to a Tank By Our Men. Fig. 3 Shows the Tank Uprooting the Barbed Wire Entanglements, the Hooks or Grapples at the Other End Holding the Cables Fast to Entanglement.

concentrate reserves of infantry behind the attacked area, thus defeating the object gained by destroying the entanglements.

Another favorite method originated by the British, is to have tanks run over the entanglements, crushing poles and wire to the ground, but again this method gives notice to the enemy, and while not as much as if the barrage were used, still notice is given. Also one tank or even fifty tanks cannot break down a large area of wire, for it stands to reason that each tank can only crush down an area equal to the width of the tank itself, which usually is not more than ten to fifteen feet wide.

Recently a Yankee colonel devised an original method whereby use was made of ordinary chicken netting interspersed with thin steel rods. A number of such wire rolls are unrolled over the entanglement and the soldiers found little trouble in walking over this improvised bridge, but, of course, many casualties resulted by the Huns picking off the Americans with gun or rifle shot. All the methods cited above have one great objection, and that is that they leave the barbed wire on the ground in some form or other, and even if the poles and barbed wire have been crushed down, they still make very unpleasant walking as may be readily understood.

The writer wishes to advance an idea which has none of the objections cited above, while at the same time no new ma-

After a number of wires, spaced say, twenty to twenty-five feet apart, have thus been shot over the entanglement, our men leave their trenches and attach the free end of the wire cable to the tank, as shown in our illustration, which tank may be some considerable distance behind our own lines at any point which is best suited for the requirements at the moment. When all lines are made fast, it is only necessary for the tank to start moving backward, when a considerable section of the barbed wire entanglement will be bodily uprooted and pulled out of the way. The entire tangled mass of poles and barbed wire wreckage can then be pulled somewhere to the rear, where it is out of the way and will not harm our advancing infantry. It goes without saying that by using a number of tanks and by shooting over a sufficient amount of lines, almost any section of barbed wire can be cleared in this manner. This system would work, of course, where there is a double, triple, or even quadruple line of barbed wire entanglements, one behind the other. In this case, all our men have to do is to grapple the nearest line facing the enemy, and once our tanks begin pulling, the first line of entanglements will invariably become enmeshed with the second, third and fourth line, and uproot them all. It is merely a problem of having a big enough tank or tanks with heavy enough wire cable and grapples.

vance thru the open gap. The enemy will at most have a few minutes notification, which will not be sufficient to call in his reserves.

It would seem that the advantage of this idea lies in the fact that a wide breach can be made at small expense to human life, for it is obvious that no human being need be near the barbed wire, unless, of course, volunteers should elect to place the grapple cables into the barbed wire by hand during the night, thus even dispensing with trench mortars. This can be done by sending out the men in no-man's-land during the night to fasten the lines to the barbed wires.

There are, of course, many other variations to this scheme which will immediately suggest themselves to the men in charge of this work at the front and who are best qualified to handle such matters.

PRESIDENT'S REPLY TO GERMAN FLASHER BY RADIO FROM ARLINGTON.

President Wilson's reply to Germany on October 23rd was sent broadcast to the world from the Arlington naval radio towers on the night of October 24th, after the official text had been put on the cables. If not picked up directly by the German station at Nauern, it was undoubtedly relayed from other points in Europe in time to reach Berlin in the morning.