DEFEATING THE SUBMARINE BLOCKADE
How the Much-Discussed English Channel Tunnel Would be of Great Value at Present for Military and Peaceful Purposes

By Ernest Busenbark

"I THINK that the existence of a tunnel (under the English Channel) would be a great inducement to France to invade England." Thus spoke Lord Wolseley before the House of Parliament in 1881.

The thirty-four years intervening between that time and the present have witnessed a rapprochement between England and France which reached its climax when these two countries became allies in the combat with Germany. The unfavorable attitude of the British towards an under-channel tunnel has become less obdurate, if not entirely favorable. The German submarine blockade has emphasized the need for such a tunnel, since military supplies, food, merchandise, and even soldiers could then be transported between France and England without danger or possibility of interference. Furthermore, it would permit of greater mobility to the Allied army. For instance, practically all the men of the British army could be concentrated in France, yet at a moment's notice they could be brought back to England and sent to any point of the island in case of threatened invasion by the Teutons. Under the present conditions England is obliged to keep an army at home as a precaution against eventualities:

Let us consider the question from another point of view—from a peaceful standpoint, since the war is only a temporary condition. It is well known by travelers that the English Channel is one of the roughest stretches of water to travel across in a steamer. Were it not for the thirty odd miles separating England and France, it would be possible to travel between Paris and London in a shorter time and the trip would be a more pleasant one. It would bring England and France into still closer relationship, since such a tunnel, offering through train service between the two countries, would encourage natives of one country to visit the other. In brief, it would make England part of the mainland yet not jeopardize her military advantage of being surrounded by water.

The English Channel project is not a new one. It dates back more than one hundred years. In almost every decade since 1802, at the time when engineer Mathieu laid before Napoleon a project for a tunnel under the channel, the plan has been resuscitated, revived temporarily and then hastily shelved because of the strenuous objections raised.

In 1872 a company capitalized at $400,000 was formed under the direction of economist Chevalier to make necessary researches and plans for the tunnel. One-quarter of the shares were taken over by the Rothschild brothers and one-half by the North Railroad Company. The tunnel company asked no subsidy from the French government, but pledged itself to carry out the preparatory work—at least to the extent of its capital. Negotiations with the authorities opened at once and in 1875 the necessary charter was granted; the tunnel being bored from the French side was to meet another section starting from the English coast.

The preparatory work was carried out and the general observations made were deemed very encouraging. Under M. Ludovic Breton, shafts and galleries were sunk near Calais at Sangatte to 55.20 meters below sea level. In 1883 this gallery was 1839.63 meters in length, about 156 meters of it having been dug by hand. The conclusion from the initial survey was that the tunnel project could easily be carried out, since it would go through what is known as "Rouen Chalk," which is quite soft, yet impervious to water. The chalk forms the bed of the channel down for a good distance.

It was planned to construct two cylin-