

# Strategic Moves of the War, October 21st, 1915

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INTEREST in the Great War is still centered on the situation in Serbia created by the Teutonic invasion of that state and the entrance of Bulgaria on the Teuton side. Russia, France, England and Italy, in the order named, have formally declared war on Bulgaria so that the combined efforts of the entire Quadruple Entente will probably be thrown into the near eastern theater to thwart the Teuton plans. There is a tendency on the part of foreign correspondents to regard the Balkan situation as one fraught with the greatest danger to the Allies' cause. So important indeed do these correspondents make out the newly created situation, that if future developments of diplomatic or military events go in the slightest degree further against the Allies, the latter's situation will be truly desperate and the whole fortune of war will probably go against them. Before taking up the military campaign in this theater as it has developed since October 14th, the date of the last review that has appeared in these columns, it may prove interesting to analyze briefly the situation as a whole to see just what justification there is for this point of view.

In the first place certain facts are of such common knowledge that there can be no dispute. The available man power still remaining as a potential reserve is much greater with the Allies, as they are at present constituted, than with the Teutons. The Teuton wastage through casualties is, on the Russian front, somewhat less, probably than the Russian, but on other fronts is, with equal probability, greater. This does not mean the rate of wastage based on the relative numbers of men engaged, but the actual numerical losses. Again, the Allies have unquestioned financial superiority. British commerce is practically unmolested. In spite of the German submarine activity, over 98 per cent of British and French vessels, inbound or outbound, reach their destination and discharge their cargoes. Germany's commerce is totally destroyed, so that everything Germany buys abroad (and she is unquestionably getting some supplies through neutral ports) must be paid for not in an exchange of merchandise, but in cash, and she must in addition pay for the supplies produced at home with cash drawn entirely from her internal resources. In shell production it is possible that Germany may have at present a certain superiority, but this superiority, if it exists at all, is fast disappearing. Through British control of the seas, the Allies have the markets and factories of the world at their command. Enormous contracts have been let in this country, deliveries under which are just beginning to reach material proportions. Soon the pendulum will swing the other way and in shell supply also the advantage will rest with the Allies. These three things—man power, money and shell—are the all-important factors in modern war and they cannot be offset by the more perfect German organization. The effect of the Allies superiority in these factors has been amply demonstrated in the past month both in France and in Russia. Last winter the Allies began a determined offense in Artois and in the Champagne. In Artois the fighting was particularly desperate for possession of Loos with the surrounding hills which dominated both the city of Lens and the approaches to it. In the Champagne the fighting was directed against the German positions on the hills, just behind which ran the Challerange-Bazancourt railroad, the connecting link between the German army in the Argonne and that in the Champagne. In both cases the French offense, though lasting for several months, was unsuccessful and gradually subsided. Nine months later, through superiority in shell and in men, at least at the points of attack, the Allies accomplished in three days what they had failed to accomplish before in three months. The German line in the west is thinning out, not to the point where it can be broken and penetrated over a wide front, but to the point where it can be deeply indented. The most favorable aspect of the case that the Kaiser can possibly see, is a stalemate. He cannot go ahead, he might possibly keep the English and French in their trenches. Ultimately, unless a decision can be gained in the east, this must mean victory for that side which possesses the greater resources—in this case, the Allies. This transfers attention to the Russian front.

Two months ago the Russians seemed shattered, their

organization disrupted, their inferiority in shell so marked that to check the rush of the German advance that started in May from the Dunajec River seemed an impossible task. The Russians were apparently trapped time after time only to escape capture or annihilation through the extremely clever strategy of the Russian commander. Suddenly the German advance was halted, the Russians seized the initiative and striking back along the entire line from Riga to Bessarabia, succeeded in straightening out their line and held the Germans absolutely in place west of the railroad from Riga to Rovno. There is but one possible answer—men and shell. As for the latter, Russia has through double-tracking the Trans-Siberian road increased her supply or the Germans through lack of a lateral communication have of necessity decreased theirs. The result is the same—an equality of artillery which narrows the proposition down to one of individual rifle fire—which is to the number of men. And in man power Russia is superior.

It is on the eastern or the western front that the war will be won. It is inconceivable how it could be otherwise. The Teutons may create a situation in the Balkans, in fact have done so, which appeals strongly

part of the line also. This means that they have thrown the Saloniki railroad completely out of use so far as any allied aid reaching the Serbians in the north is concerned. It is therefore apparent that most of the fighting in which the Allies are engaged must be against the Bulgars and this has proven to be the case. As is always the case at the beginning of a campaign, reports are so at variance that it is difficult to form any definite idea as to individual moves. There is an irreconcilable conflict that will not be settled until the entire campaign has assumed more positive shape.

It would seem to be the general plan of the Bulgarians, once the Saloniki-Nish railroad is cut, to clear it as far north towards Nish as possible so as to make a junction with the Austro-German forces coming from the north. The Allies on the other hand would appear to be attempting a flanking movement against the whole of the Bulgarian line. This is the object of the attack on Strumitza—the strongest fort in southwestern Bulgaria and on which Bulgaria would naturally depend for one of the bulwark defenses of her left wing.

The Allies have also increased the possibilities of the situation by landing a force at Enos and seizing the Bulgarian railroad which connects with the seaport of Dedeagach. The object of this move would seem to be the town of Dimotika, the junction point of the Berlin-Constantinople road with the main road from Greece to Constantinople. Although in order to make such a move feasible the force would have to be very large as it would be between two hostile countries, Turkey on the east and Bulgaria on the west. However, once at Dimotika, the Allies would have an excellent opportunity to strike either for Constantinople or Sofia. One result that this landing is sure to accomplish, however, is the diversion of Bulgarian interest from their western front, where they are driving at the Serbs, to their southeastern border, where their short coast line is on the Aegean. It would create an exceedingly interesting situation if the Allies would withdraw from Gallipoli at least in part, and with Italy's aid land a force of sufficient size to move against Constantinople in an effort to reach that point before the Teutons and Bulgars can clear the railroads in Serbia. This could be done from Enos in two ways. First, by way of Demotika, following the valley of the Maritza River and the general railroad line, and, second, by striking not at Constantinople directly, but at Gallipoli

from its eastern end. An excellent dirt road runs from Enos eastward to Kavak where it is joined by the main road through Gallipoli, about 12 miles east of Bulair. With the help of the fleet in the Gulf of Saros an army operation along this line could be much more readily supplied and reinforced than if the much longer railroad route were taken. But this of course is speculation. No indication has yet been given as to which way the force at Enos will move. Probably by the time next week's article appears the Enos movement, if it has any serious import, will have taken definite shape.

## Predicting Volcanic Activity

DIRECTOR T. A. JAGGAR, JR., of the Hawaiian Volcano Observatory, has worked out an elaborate hypothesis in regard to the principles underlying the periodic outbreaks of Kilauea and Mauna Loa, with a view to making approximate predictions of these phenomena. This hypothesis takes account of the seismic and volcanic histories of the two volcanoes and the tidal and other stresses set up in the globe by the sun and moon, varying with the positions of these bodies. A prediction that Mauna Loa would have a summit outbreak between 1911 and 1915, occurring about June or December, was verified in 1914. Dr. Jaggar now predicts a lava flow from Mauna Loa, probably within four years and most probably in not less than three years, and the occurrence of a short-lived summit outbreak before the flow, most probably in January or July, 1918. He also predicts that the lava flow will break out from a vent on the north side of the mountain, probably somewhere above the Dewey Crater of 1899. In order that the expected period of activity may be properly studied he is endeavoring to raise a fund of \$6,000, to be spent in establishing suitable stations and camps on Mauna Loa.



Map of operations in the Balkans

to the imagination. The conquest of Serbia will be a dramatic triumph but will not prove a military decision. It will merely put ahead the day of peace rather than bring it nearer. Popular interest, however, is stirred largely by events that have an imaginative appeal particularly when there is a strong dramatic element. Therefore the interest of the public is still centered on the Balkan situation.

The development of the Teuton-Bulgar offensive has a number of points of interest. The Teuton plan has not varied in its general conception from that which was indicated in the first stages of its development. The front of advance is over the full northern boundary of Serbia, but particularly between Belgrade and Semendria. The operations east and west of these cities are altogether subsidiary, as it is this front which holds the key to the railroad situation. The strongest concentration of effort is therefore on the direct drive to Nish, while the flanks of the army making the drive is guarded by the troops east and west.

The Bulgarian part in the campaign has, however, undergone a change from the plan that was indicated by the initial moves. At first it seemed that the drive both of the Teutons and the Bulgars would be at Nish where the Berlin-Constantinople railroad is joined by the railroad from Saloniki, over which the Allies were to send Serbia assistance. Bulgaria, however, while a comparatively small portion of her forces are so engaged, has taken for her principle immediate objective the Saloniki-Nish part of the line in order to prevent assistance from reaching the hard pressed Serbians. This line comes closest to the Bulgarian frontier at Wanja—about 50 miles south of Nish and in the valley of the Vardor River—where in some places it is not more than five miles distant. The Bulgarians have reached Wanja and have struck against the southern