

## Current Topics

### The Only Hope

The extremely interesting contributions of 'A Neutral,' appearing in the columns of the London *Times*, are being very much quoted, because it is generally recognised that they represent the conclusions of one who has had exceptional opportunities of getting at the facts, and who writes with at least a reasonable amount of disinterestedness and detachment. In a recent communication to that paper he commits himself to one of the few war prophecies that seem to be based on sound calculations, and to have a tolerable prospect of fulfilment. 'When I left Germany,' he writes, 'I carried with me the conviction that when the German masses lose confidence (and much has been lost already) in their military leaders the internal situation will be very difficult to manage. Yet until the Allies are able to cross the German frontier all along the line nothing will induce the population to give in, even though they see the hopelessness of resistance. But if the Allies do cross the frontier, and if the German Army receives another blow like that of the battle of the Marne, there will, in my opinion, be a rapid collapse.' That seems to be the one and only hope of anything like an early termination of the struggle.

### Bernhardi on Kitchener

The exact terms of the *Daily Mail's* attack on Lord Kitchener have now been published in our dailies: and alike in substance and in form the diatribe is a shameful and disgraceful performance. Even if every syllable of this tirade were true—and the ungenerous references to Kitchener's past career as a general, at least, are palpably false—it is a scandalous thing that a metropolitan daily with a huge circulation should devote itself at such a time to belittling the man to whom the nation so largely looks to see it through the present crisis. In the matter of organising troops for Europe, and of creating and developing the necessary factory organisation for maintaining a proper supply of rifles, Lord Kitchener has done work that no other man in the Empire could have done, and work which at the time it was absolutely vital to have done. Latterly he has had an impossible burden placed upon his shoulders; and if he should in any respect have fallen short of requirements, he has done nothing to deserve that the fact should be proclaimed from the house-tops, and flaunted before the public in the vulgar and abusive method adopted by the *Daily Mail*. This has been frequently described as a psychological war; and the psychological effect on the men at the front, and on the men who are being asked to go to the front, of undermining their confidence in those who have the direction of affairs, is not likely to be good.

Like everybody else, Lord Kitchener has, no doubt, the defects of his qualities, and is in danger of carrying to an extreme his passion and undoubted genius for organisation. Such, at least, is General Von Bernhardi's idea. In his second and latest war volume, entitled *How Germany Makes War*, the author of *Germany and the Next War*, in insisting on the necessity of self-reliant action, remarks: 'The way in which the English conducted the South African war is, in this respect, extremely instructive. Here a system of perfect centralisation of command prevailed. Every strategic and tactical movement was prescribed by the central authority to the minutest detail: personal initiative was confined to the narrowest limits. When it appeared it was at once suppressed, and where initiation proved necessary it failed nearly always. Especially when Lord Kitchener became Commander-in-Chief, centralisation of command appeared in its acutest form, giving rise to a series of stereotyped measures. The result matched the action. As little as they ever succeeded in beating the Boers decisively in the first part of the campaign, so little did they succeed in suppress-

ing the guerillas in the second part. The self-reliant initiative of a De Wet, a De la Rey, and a Botha defied all the thumb-rule of British Headquarters, which positively precluded all independent action of subordinate commanders. The English must confess, and they do confess, that their army completely failed in this respect. Complaints on the purely literal obedience, and want of self-reliance and initiative of the English generals were heard from all sides. They characterise the opinion the English had of their own army. It had apparently ceased to appreciate that self-reliance is everywhere the necessary corollary to any systematic action.' At least the charge of over-centralisation cannot be laid against the arrangement which has now been adopted, under which Cabinet ministers have been gathered from the four winds of heaven and from all possible points of the compass. If any real good comes from the present miscellaneous and heterogeneous combination, euphemistically described as a National Government, it may be taken as conclusive evidence that the age of miracles is not past.

### 'Ship's Ears': A Defence Against Submarines

The loss of the *Triumph* and the *Majestic* is rather a serious matter—not so much in itself as in the possibilities which it opens up. If two or three German submarines get loose at the Dardanelles we will be very lucky indeed if our newer and bigger battleships escape their attentions. There is no doubt that the submarine has scored heavily in the present war; and the sooner a reasonably sound defence to this under-water danger is hit upon, the better it will be for the Allies and their cause. Under the circumstances, the new and promising invention of Professor R. A. Fessenden, of the Submarine Signal Co., of Boston, Mass., deserves, and is doubtless receiving, the careful attention of those interested. Professor Fessenden has high credentials as a physicist and electrician. For years he was associated with Thomas A. Edison. He was one of the pioneers in wireless telegraphy, and his system of wireless transmission is used in the great Arlington towers at Washington, D.C. He achieved another distinction when his system of electric power transmission was used by the Canadian Government in distributing the energy of Niagara Falls through the Province of Ontario. For years he was professor of electricity and physics at the University of Pittsburgh. His new invention, which aims, amongst other things, at enabling battleships to keep out of the way of submarines, provides a ship with 'ears,' or steel diaphragms or oscillators, which will hear wireless messages and warnings sent beneath the water—so that the screw of a submarine may be heard while miles away. These 'ships' ears' by means of echoes will also give warning under the water when icebergs are approaching. Such an apparatus, it is pointed out, might have saved the *Titanic*—just three years ago. Echoes from icebergs six or eight miles away have been recorded. These echoes were not only heard through the receivers of the oscillator in the wireless room, but were plainly heard by the officers in the wardroom and engine storeroom below the water line.

In an interview with Mr. Cleveland Moffett, of the *American Magazine*, Professor Fessenden explains that each ship needs two of these oscillators, like two ears, one on either side, which allows it to fix the direction from which a signal comes. 'This is done by a delicate instrument that takes account of differences in the intensity of a given signal as heard by the two electrical ears, one of which, on the more favorable side, hears the signal more distinctly than the other. A ship's officer has only to adjust this instrument and then read off on a dial the exact point of the compass from which the signal comes.' Asked as to whether a battleship could tell by this means the distance of a submerged submarine, the Professor answered: 'Yes, approximately, by the intensity of the sound received, for, of course, the oscillator's loudness grows less as the distance increases. There will be a distance indicator