

morale, and no diminution in his ammunition supply. The power that can resist the Allied glacier in France, can hold the Russians at Kovel, and can simultaneously carry through a vigorous and on the whole successful offensive in the Dobrudja, while stubbornly resisting all along the Macedonian front, is a power still to be reckoned with.

Therefore it seems probable that the coming winter and all next summer will see the manufacture of munitions carried on with an intensity that even the present phenomenal rate has not yet approached. All this activity is based upon coal. Coal is the basic, indispensable, paramount munition of war.

If, then, while the sinews of the Empire are being strained to the utmost to munition our armies, and to provide adequate stocks against the "knock-out" which Mr. Lloyd George has foreshadowed, the Canadian coal production declines, as we have shown that it must decline, is there not a very grave mistake somewhere?

In the United States the bituminous coal production in the first half of 1916 increased over the first half of 1915 by thirty-five per cent. It is estimated that the production for the twelve months will reach the stupendous total of between 575,000,000 and 600,000,000 tons, which compares with the best previous annual production of 500,000,000 tons in 1913.

In Great Britain the Board of Trade has undertaken a house-to-house canvass asking for greater economy in the use of coal, pointing out that economy in coal consumption will have the following results:

- (1) Increased power to help our Allies.
- (2) Increased power to strangle German trade and injure the German economic position, by means of arrangements with neutral shipowners and neutral merchants, based on the supply of coal.
- (3) An improvement in the foreign exchanges, and consequently a reduction in the cost of goods purchased abroad.

Are we so wealthy in Canada that we can afford to spend millions of dollars in the United States for coal that could and should be mined in Nova Scotia? Are we not also interested in this matter of exchanges?

The threat of a railway strike in the United States recently revealed that dependence of Ontario and Quebec on United States coal. If this calamity had occurred Nova Scotia could not have raised a finger to help, because the production of coal is already fallen far below the needs of the Maritime Provinces and the bunker business. It is no secret that war munitions of various kinds are being manufactured from the Atlantic Coast to Ontario. Is it wise to have all these industries dependent on the coal supplied us by a friendly, but nevertheless neutral neighbor?

What would the people of Canada say were the acreage of Canadian wheatfields reduced by fifty per cent.? Would there not be an immediate protest and strenuous endeavors to increase the acreage and the harvest yield? Yet it seems to be forgotten that without coal the wheat will stay in the West, and will never reach the hungry mouths across the seas. Without coal we could not have sent one man to France, nor shipped a pound of steel or a pint of toluene. The idea of a declining production of bituminous coal at the present time would be farcical in its utter ineptitude were not the reality so grave, and actually with us.

### FIRST AID WORK AT METAL MINES.

The experience in connection with efforts made to arouse general interest among metal miners in British Columbia in matters relating to instruction in first aid to the injured has not been as favorable thus far as could be desired. Nevertheless the officials directly charged with the duty of encouraging men engaged in and about metalliferous mines in the Province to attend classes for instruction and to become competent to render first aid in cases of emergency are steadfastly persisting in this important and beneficent work, looking forward with confidence to increasingly good results as time passes and more of those who should be chiefly concerned come to a realization of the necessity rather than the mere desirability of their taking upon themselves personally this duty to their fellow-workers as well as to themselves. Only recently was the report of the British Columbia Department of Mines for the calendar year 1915 published, which accounts for this apparently tardy reference to the information given by the Department's instructor in first aid, Dudley Michell, of Victoria, of the results of his work during the year.

As Mr. Michell's report for 1915 covers only his second year's official work in giving attention to first aid and the use of mine rescue apparatus, it may be of interest to first recall what he accomplished in 1914, and then briefly review what was done in 1915. It should be premised, though, that Mr. Michell is not generally called upon to instruct those who attend classes in first aid, that duty falling to duly qualified surgeons, the policy of the Department of Mines being to encourage men to endeavor to obtain first aid certificates of competency from a recognized Ambulance Association, which can only be secured by passing the examination under the auspices of such an association after the prescribed number of lectures, given by an approved surgeon instructor, shall have been attended, and the requisite percentage of marks have been earned at an examination held by an authorized surgeon examiner.

Mr. Michell entered upon his duties in May, 1914, and about the end of that month he met several mine managers at a meeting of the Western Branch of the Canadian Mining Institute at Nelson, West Kootenay, and placed before them the proposed policy of the Department of Mines with the object of inducing miners to take first aid instruction. Directly afterward he set about organizing St. John Ambulance Association "centres," and forming first aid classes. The immediate result was that two classes were formed at Rosstand, followed by three in Boundary district, and afterward by five in various parts of West Kootenay. Then the European war was commenced, and, as a result of the consequent demoralization of the markets for metals, many of the metalliferous mines were closed for the time, and most of those who had been employed at them scattered far and wide. Rosstand mines, only, escaped the general disorganization, so that the first aid work commenced in that camp was continued without interruption, until to-day it is established with little likelihood of the larger mines in the camp ever again being content to go along without having among the mine employees a considerable number of men trained in first aid or mine rescue work, or both.

In the cases of the mines employing comparatively large numbers of men and having the services of a resident surgeon available for purposes of instruction,