

The Fuel Shortage

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The question that forces itself upon the average man today more than any other—except of course, that of Winning the War—is the shortage of fuel. For, to the great majority of dwellers in both this country and in the United States, fuel is an absolute necessity.

We can, under compulsion or by choice, change many of our kinds of food. We can even restrict the quantity of food to a certain degree, and thus promote the desired saving for the allies' sake, and, incidentally, improve our own health considerably.

We can effect great savings in clothes, by putting off the purchase of a new suit or coat, or by adopting a less expensive quality of goods.

But Fuel! It is necessary to all, and although greater economy can be secured, there is a point beyond which hardship, and even death itself, may be the result.

It is therefore quite right that Controllers of Fuel should be appointed in both the countries which are interested, both as consumers and producers.

The puzzle to the average man in the street is, Why does this shortage exist at all at the present time? And the answer is somewhat difficult to understand, for it is not a simple one.

The Geological Survey of the United States estimates that the total production of 1917 was 50,000,000 tons greater than in 1916. But on the other hand, the consumption is estimated at 100,000,000 tons more. This leaves a deficit of 50,000,000 tons, which must be off-set by economy or by the use of other fuels. However, the Survey gives us a hopeful view of the future, and estimates that there is still coal enough to last for at least another five centuries.

But the great trouble is the transportation. To handle coal in an economical way, it must be loaded on the cars at the mine, and shipped directly from there. "Therefore," says the Wall Street Journal, "the maximum output of the mines depends upon a sufficient supply of cars."

Naturally, scientists and business men alike are turning their attention to other sources of fuel. Among these probably peat comes first, partly because of its widely spread distribution, and partly because of its extensive use in other countries. In this connection, the enquiries and experiments of our own Government are of great value.

Then comes the more efficient utilization of the vast areas of lignite, which are found all over the western part of Canada. And that this is practical was shown in an article by Mr. R. A. Ross, C.E., in the issue of November, 1917, of this Journal. The high price of coal, which seems likely to be maintained, will enable the vast beds of lignite to be brought into the market.

The tremendous supply of "White Coal" which abounds in both Canada and the United States will also be available for heating purposes, both because of the high price of coal, and because of the improvements in the use of electricity for fuel that are sure to be found out, as the occasion becomes more suitable. There will also assuredly be some means of using the electric current for heating the water systems of our homes, for that would simplify the burden of the householder. A time will come when the switch will be turned on to heat the hot water boiler, just as it is now to light a room.

Another improvement, which is being discussed in Great Britain, will be the production of electricity from coal at the pit's mouth, thus avoiding the large element of transportation charges. For transportation forms a very considerable factor in the cost to the consumer, and as the coal barons are now charging a percentage on the selling price to the consumer, the poor user is doubly hit.

An element that should be dealt with by the Fuel Controllers, at all events by that official in the United States, is the enormous percentage now being demanded by the lessees of the coal bearing lands. According to an address given by Messrs. George O. Smith, and C. E. Leshner, of the U.S. Geological Survey before the American Mining Congress, November 1916, which appeared in the Scientific American on January 8th, 1918, the value of coal lands has increased from \$2 to \$4 per acre in 1800, to \$500 in 1875, and now is \$3,000. And all the lessee does is to pay the lease, allow some other men to mine the coal, and sit back, drawing as much as 27 per cent on the price to the consumer. So that if coal sells retail at \$10.00 per ton, the

lessee receives \$2.70 for his share. No wonder that "Life," in one of its serious articles, says: "The principle, that a few men can control a great natural resource which belongs to the whole people, and can fix prices at their own pleasure, making fabulous money out of it, while on the one hand the miners are forced into receiving pay that they cannot live upon, and on the other hand the public is systematically robbed—well, it may be worth a war to show up this principle, and put it where it belongs."

This may be very socialistic in its inference, but the poor consumer will be likely to applaud it.

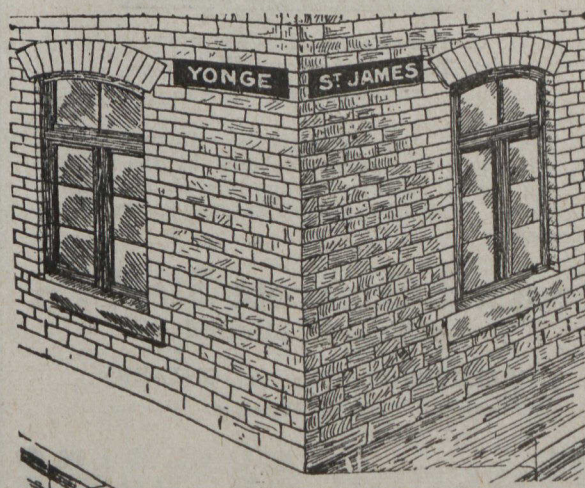
For the coal lessee does absolutely nothing at all towards the production of what, as "Life" claims, is a purely natural resource.

There is another feature in the supplying of coal to the public that has not yet attracted the attention that it deserves. And that is the forcing on the consumer of rubbish along with good heat-producing coal. The coal was formerly carefully picked over before being loaded on the cars, and the slate taken out. But when the miners succeeded in getting increased wages, the coal barons, determined to keep up the excessive profits, decided to sell rubbish along with good coal.

The economic wastefulness of such a procedure is apparent. For not only is it a deliberate hold-up of the consumers, but the transportation problem is seriously affected. Because if, say, fifteen per cent of rubbish is mixed in the coal, it means that fifteen out of every hundred cars could be saved by a careful sorting of the coal before shipment. It also means that every consumer has to burn some good coal simply to heat up the slate. Then comes the further waste of the handling of the refuse from the furnaces. Practically, the coal barons are selling adulterated goods, and this should be stopped. Would not anyone who suggested that the farmers should ship the wheat on the stalks be considered a fool? And yet that is similar to the way the coal is shipped. It carries with it the useless with the useful.

Of course, this pertains to the anthracite, rather than to the soft coal. For the users of soft coal are generally factory owners, or cities, and these can protect themselves by purchasing coal on the heat-value system. This was introduced into Winnipeg, Man., by Col. Rutan, C.E., city engineer, who purchased the city's supply on a price based on the B. T. U. (British Thermal Unit) value, that is on the actual value for heating purposes. If the ordinary consumer could be protected by a standard of heat-value, the coal barons would not make such enormous profits at the expense of the householders.

If the quality of the coal as shipped from the mines were improved, as it certainly can be, then the transportation pressure would be lessened, and the consumers would have less work, and more economical heat. This is suggested to the Fuel Controllers as one means of meeting the very serious difficulty with which they are so conscientiously struggling.



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