

While there are areas in which by reason of climate and location people have hitherto suffered little in any conscious way from these forms of waste, unconsciously they, like all the world have paid in the price of the goods they consume, accepting the rising cost of living as an incident of the war and inquiring no farther.

The whole people are, in fact, deeply interested whether they are awake to its immediate importance or not, in prompt action by the Government in this field.

In the absence of needed technical data there are certain obvious facts, which are not at present receiving the popular consideration necessary if any steps are to be taken towards minimizing in future years the dire experience of this winter. Some of these obvious facts follow:—

The present method of getting power by transporting coal, wastes life and limb of employees who move the trains.

While we have no adequate figures as to the losses, that they are serious is a matter of common knowledge. Accidents are notoriously numerous in breaking up and making up coal trains, and in the whole shifting process incidental thereto.

Loss of life and industrial injuries to employees in this service are not made public as collisions and all spectacular injuries to passengers in transit tend to become public through the daily press. But records of workmen's compensation commissions are enlightening to students.

Similar injuries to travelers are caused especially where single track roads are used by passenger, freight and coal trains. It is only on exceptional roads, such as the four track stretches from New York City to Buffalo and Philadelphia to Pittsburg, that this danger of collisions, because of the presence of slow and clumsy coal trains is wholly eliminated; and on the limited number of coal roads in the North Atlantic States, (chiefly Pennsylvania) which are, as their name implies, not in the general transportation business.

Our present method wastes time because quick trains are delayed by coal train wrecks. Every commercial traveler knows that this is a commonplace experience of American railway travel. At all times coal trains are proverbially the slowest. They reduce the number and the running time of other kinds of trains. Perishable freight, such as refrigerated meat, fruit and vegetables, is delayed and spoiled in transit by coal cars blocking the rails. This aspect of the waste of time has amounted to a national calamity during the past six months.

To symbolize the waste of beauty, and of the joy of living, incident to our present use of coal for power, it is only necessary to mention Pittsburg, Chicago and, in less vivid illustration, Cleveland in this country. Most convincing of all is the vision of London, England. On the other hand, abundant supplies of electric power would enable us to keep cities cooler in summer; to do away, for instance, with the numberless fires now used in July and August for generating power for elevators in the torrid days common in the cities of the Atlantic seaboard.

Waste of man power is vastly larger than appears at first glance, and second to it in importance, the waste of vehicles. It is only necessary to enumerate locomotive engineers and men who move coal trains; captains and crews of coal schooners; captains, engineers, stokers of tugs and barges in coastwise and lake transportation; chauffeurs of coal trucks, drivers of horse-drawn coal carts. To these must be added all the men who load and unload at the mine mouth, at the ship, at the coal yard, and finally at the place of delivery, besides engineers and furnacemen in the innumerable scattered plants where power is finally generated at the point of use.

Further wastes involved in carrying power coal to its place of use by cars instead of wire include tracks, cars, engines, boats, barges, tugs, trucks and carts. The last named two vehicles are a great nuisance in winter in snow-filled city streets in the Northern cities where chronic congestion of traf-