

Don't permit your labourer to load coal before you have replaced dislodged timber.

Don't conclude the roof is safe in spite of a drummy sound.

Don't take a lighted pipe or lamp to your powder box.

Don't forget to keep your labourer and his pipe at a respectable distance when you are handling explosives.

Don't fire two holes at the one time.

Don't shorten your squib in order to save powder in a wet hole.

Don't pass over danger signals.

Don't hurry in order to get out early.

Don't risk your life to save labor.

Don't forget the miner is responsible for the safety of the labourer.

THE LABOURER.

Don't go into the face until the miner has examined it, and pronounced it safe.

Don't fire blasts for the miner, nor in the absence of the miner.

Don't disregard the orders of the miner.

Don't run care out from the face. Let the runner come for them.

Don't roam through the old workings.

Don't walk haulage roads; go the manway.

Don't forget to close all doors as you pass through them.

Don't forget to retreat to a place of safety when blasts are about to be exploded, etc., etc.

THE RUNNER.

Don't allow drivers to run cars. Run them yourself.

Don't ride between cars in a moving train.

Don't ride on the side of the car.

Don't allow the drivers to make flying switches.

Don't ride on the front bumper of mine cars.

Don't run cars on a grade until you know it is clear below.

Don't forget that head-blocks are to be put on for the protection of runners and drivers.

Don't forget to call the attention of the driver boss to bad roads.

DRIVERS.

Don't take the door boy away from his post to drive your mule.

Don't ride on the bumper, trailing your feet along the road.

Don't forget that a blast follows an alarm.

DOOR BOY.

Don't leave your door.

Don't allow your door to remain open longer than is necessary.

Don't run around after mules.

The papers have it that as a result of Mr. James Ross' visit to Britain, an English expert, Mr. J. Kirby will join the staff of the Dominion Coal Co'y. The Record is of opinion that Mr. Kirby comes not as a permanent official, but as an expert on submarine coal mining. The Record is greatly mistaken if Mr. Ferries' place will be filled in the meantime.

BURNING ASHES AND OTHER ECONOMIES.

Within the last year or two there have been several idealists who have rather ingeniously exploited methods of reusing partly burned coal by adding to ashes combinations of heat-generating chemicals. The first of these was John Elmore, a cobbler of Altoona, Pa.; but he was quickly followed by another man in Allentown, Pa., still another in Philadelphia, another in Iowa, another in Michigan, another in Missouri, and at various times and in various places local papers have portrayed, under circus-poster headlines, the wonderful discoveries of some local notable

Adding any chemical substance that will, when heat is applied, generate gas, ashes can be seemingly burned for a time; that is, the unburned particles of coal, rather of coke or semi-consumed Anthracite coal, that have not been separated from the ashes, will burn and hold fire, and the gas generated from the chemicals will facilitate the combustion to exhaustion of all the carbon of such particles. This is about all there is to the question of burning ashes—a condition like that observed when certain chemicals are brought into contact.

For instance, unslacked lime, when brought into contact with water, will generate an intense heat, intense enough to set fire to a building, as has often been proved; or strong spirits of ammonia will develop an intensity of cold, when diluted with water, sufficient almost to freeze one's fingers when grasping the flask or other vessel, glass, clay or metallic, in which it is contained. The faculty of generating heat by chemical admixture has been much speculated about by chemists as a probable source of heat in that remote time when our coals will have been exhausted, but at the present time it is an ideal condition that science determines is feasible, but which commercial conditions pronounce impracticable. Coal is likely to continue to be used for a long time yet.

At the same time, there are signs and portents that it would be just as well for coal producers and others who have an interest in fueling commodities and investments to take cognizance of. It is well known and recognized by the few that certain economies that are being practiced, and others that are being tried out by some of the large consumers of coal, mean a distinct reduction of the quantity they use for the generation of a certain fixed amount of power; in fact, it is indicated that with no increase of the quantity of coal, they will be able to generate a considerably greater amount of power. In the metal making industry, a considerable declension of coal use is not only indicated, it is actually in effect. At various blast furnaces of the U. S. Steel Corporation, and some other metal-smelting companies, blast-furnace gas, that is, gas that is created as the result of the admixture of ore, coke and lime stone in the furnace during the process of roasting out the ore, is now being used to develop the blast for the fanning of the fires of the furnaces themselves. This is about as near to perpetual motion as men are likely to get—a self-generated power to continue operation. By such means the Carnegie Steel Co. is now operating furnaces at its Carrie and Duquesne plants, and its extension to the plants at Donora, South Sharon and Youngstown is to be made.

For these furnaces, gas engines of a special construction and of 5,000 to 7,000 horse power are used.