

ACCIDENTS IN COAL MINES

According to John Casey, in a paper presented at the last annual meeting of the Mining Society of Nova Scotia, carelessness or neglect in timbering at the working-face is at the bottom of the great majority of fatal accidents in mines, and this point should be given very serious consideration. It bears directly on the safety of the miners, drivers, and in fact of all underground workmen. Although timbering at the working-face has for its main object protection of life, it also is a subject of importance in connection with the conservation of coal, the cost of production and economy of time and labor.

"The duties of mine timber are two. First, to give support to the loose and overhanging coal or stone; and, second, to give warning of any movement of the roof and the danger that is imminent. In timbering, the time and place of setting are items of greater importance than the number of individual timbers set. There must be no delay in setting props under loose pieces of stone or coal, or the safest way is to take it down altogether. Systematic timbering and spragging at the working-face will do much towards reducing the number of fatal accidents. The question of when, and where, sprags and props should be set, is one which should not be left entirely to the judgment of the individual miner. While he should be at liberty to put up additional props when he thinks they are needed, he should not be permitted to set them more than a specified distance apart, as timbering not properly done causes the roof to settle unevenly, bringing about dangerous conditions. Experience shows that accidents occur from falls of stone from an apparently strong roof, in which no slip or crevice could previously be observed. Hence roof and working-face can be made secure only by timbering and spragging systematically and at the proper time.

"In mining, as in most other industries, the vast majority of fatal accidents occur from one of three causes, namely, ignorance, carelessness or disobedience. Many of our mine workers, being more or less inexperienced, are often extremely ignorant of dangerous conditions. Others, even though experienced and thoroughly realizing their danger, evince a strong tendency to put off taking precautions against a known risk until a later and more convenient time, often until too late. These men rashly disobey the instructions of their superiors when told to take down a certain piece of stone or coal, or to set a sprag, or to put a prop under a boom that has only one prop under it. This class of men will complete loading a box before setting the second prop under the boom and will leave the mine without having performed their duty at all. There are also many intelligent miners to-day who have but an imperfect knowledge of the simple rudiments and principles of prop timbering, as they make no study of the nature of the roof under which they work, and have never thought of its mode of action. They look upon faults and dislocations as cutting out the coal and making the work of mining through them more laborious, but fail to reflect that these same slips and dislocations increase the danger.

"We all have, no doubt, noticed miners setting a prop or sprag under a fault or "trouble," just as they would shore up an old building. It does not occur to them, as it does to the careful and observant miner, that this same sprag should act as a silent but faithful monitor against impending danger; and in many cases it is the miner's own neglect that is responsible

for his injury. There is an old saying that time and tide wait for no man, and synonymous with this proverb is the fact that a falling piece of coal or stone waits for no miner to load away his coal before setting a prop to it, which might be needed to make his place safe.

"Not long ago a miner's worth was judged by the time in which he cut his coal, the quota of boxes sent away, and the distance driven in a month. These things, as we all know, are good and extremely necessary in their place, but they should not override the first consideration of safety. How often does the overman or shot-firer in his daily examination of places, find small infractions of the law which might have caused accident and which he passes over with a slight reproof! Frequently a miner is found mining with no sprags to support the piece of coal under which he is undercutting. He is not discharged as he should be, he is not prosecuted; he merely receives a slight reprimand, and he probably does the same thing again before very long. The excuse offered by the overman, for not inflicting a more severe punishment, is that if the man were discharged he would find work in a nearby colliery, and as men are needed in his own mine, he might as well keep him.

"I am sure you will agree with me when I say that it is not from the want of laws that there are so many accidents; and as disrespect of these laws is the direct cause of accident, we cannot hope for a better state of affairs until convictions in the courts for violation of the laws become more general. Therefore I contend that back of all our serious accidents is the disrespect for law and authority. Lack of discipline will destroy the the most magnificent organization; and there cannot be discipline where there is not both fear and respect for our mining laws. Therefore let everyone insist on the enforcement of these laws, and there is no more certain way of reducing fatalities.

"From our own experience in dangerous work, accidents do not, as a rule, repeat themselves so often in other parts of the mine as they do at the working-face. Take for instance the driver, if he should be caught between a box and a low boom, or if a landing tender is caught between a full and an empty box because of insufficient space between the roads, these causes are instantly remedied and the accident does not repeat itself. When the coal at the working-face is not timbered and spragged properly, and the laws are being continually broken, accidents must be expected until steps are taken which will enforce the keeping of the law.

"Few miners learn the lesson their acts and habits should teach them, and fewer still can ever be expected to profit by the lessons taught them through the misfortunes of their fellow-workmen. This habitual disregard of safety is an element of human nature that must be recognized as ever present, and one that it is needless to go into at length.

"Instead of wasting time in enlarging upon a well-known failing of mankind, let us have the suggestions of practical men on the ways and means of improving conditions that now exist at the working-face. I would also strongly advocate the adoption of a system and rules tending to eliminate as far as possible the fallible human factor which is responsible for the occurrence of many of the fatal accidents in mines. Furthermore it has occurred to me from time to time that the time-worn slogan "Safety First" be superseded by "Discipline First." The idea is one that will