Safety lamps may be placed in two classes, namely,

(1) Those lamps intended for gas testing purposes only;
(2) Lamps intended for general use,

so far as the first is concerned. Special construction and often special methods of producing the testing flame are employed generally with the object of rendering them suitable for the observation of small percentages of gas inflammable or non-inflammable that are in the air. It seems that on the whole such lamps are not likely to be widely employed in collieries, and the testing for the presence of inflammable gas will for the most part be conducted by lamps of the ordinary type, or where such tests are not of sufficient delicacy. Then the gas will be sought for by analytical methods. If the above assumption is correct then it will be sufficient to deal with the nit will be sufficient to deal with the nit will be sufficient. cient to deal with the principal points of these lamps that are intended for general use in the mine, and which may be used either by the miner or firemen for gas testing in the way already described. In order to lay the case more plainly before the miner to study, the manager and deputies should have certain classes, and all ranks of underground miners fully instructed in, first of all, the use and way of taking great care of safety lamps. The miner must see that his lamp is in good order; he must not try to dismantle or tamper with it, nor hother glass or gauges with it, nor bother glass or gauges. Lamp stations should see that lamps are oarefully tested before given to the miners at the shaft. Such attention is necessary where they are exposed to a dangerous atmosphere in some part or other of the mine. While they are following their occupation in assembling the lamp the following faults may be the lamp the control of the lamp the following faults may be the lamp the following faults may be the lamp the following faults. noted or might occur:-Lamp testers should see that the following points are seen to otherwise danger may happen through some mistakes being made:-

No. 1-The gauze or gauzes, might not be put into the lamp. No. 2.-A defective gauze might be

inserted. No. 3.—The gauze may be damaged while being put into the lamp.

No. 4.—A faulty glass might be used.
No. 5.—The glass might not be made tight, while jaming up against the stan-

No. 6.—The glass might be made tight without being gas-tight.

No. 7.—Damago to the glass or gauzes is caused sometimes by coming into con-

tuot with certain objects. Such as forcing it into the lamp or swiking against the trans or props, or banging it down on the bottom end may spring and damage the seam or joint, and a faulty glass is easy to determine by inspection. If the joint is not perfectly tight the flame jumps with the air current which reaches it through the defective part and discloses the fault. With a view to becoming familiar with these instructions colliery owners should supply their managers with printed matter with all instructions carefully printed and handed to their deputies for them to be given to both men and boys who carry the safety lamp. This would greatly help to stem the tide of explosions that is happening day by day. It would be a great help to managers and deputies if the men were properly instructed as to the use of raising and lowering the flame in gassy workings, and the fireman should draw attention to the men in the proner use and necessity of keeping the flame in its proper limits, and thereby adding to the safety and possibly that of their companions working in the mine. Report on instruction for colliery firemen and how they should handle amety lamps at the coal face. It would be a great help for your readers who are connected with coal mines.—Yours. &c., JAMES S. KENNEDY. Late of Whitehaven and William Pit,

William Story

SAVING MINERS FROM THEMSELVES.

-: 0 :-A WHITEHAVEN PROSECUTION.

At Whitehaven, on Thursday, Robert Finn, haulage hand, 55, Peter Street; Jas. Rooney, haulage hand, 13, Union Terrace; Jas. McKitten, haulager hand, 5, Charles Street, all of Whitehaven, pleaded guilty to having unlawfully ridden on a full set of tubs in William Pit, Whitehaven.

Thomas Douglas, gummer, Dunn's Court, Howgill Street; and John Edward Harker, shifthand, Countess Terrace, Whitehaven,

were charged with a similar offence.
Mr. W. H. Chapman prosecuted, and said these proceedings had been initiated for the

safety of the men themselves.

Edward Kennett, 31, Brackenthwaite, Whitehaven, deputy at William Pit, spoke as to seeing the three first defendants riding on full sets. This practice was very dangerous. If a set broke away the men would have no chance of escaping injury.

Robert Brodie manager of William Pit

Robert Brodie, manager of William Pit. giving evidence in the second case, stated that along with Mr. Cook, H.M. Inspector, he was half-a-mile in the pit when a full train of tubs passed. Without exaggeration he saw from 30 to 40 men on the set. There were some very acute bends where the sets travelled, and anyone knew that in going round the bends the tubs squeezed up and

the men riding on the couplings might have been crushed between them.

The Chairman (Mr. W. McGowan) said if the Bench had used their full powers they could have inflicted a very heavy fine, but in the hope that this would have a warning to the hope that this would be a warning to defendants and others they were going to deal leniently with them this time. They would each have to pay a fine of 20s. The Chairman said he wished to impress on their minds that they were as much responsible for the safety of the pit as anyone else. They should not only consider their own lives but the lives of others. There was nothing a colliery owner hated more than to prosecute their employees. The Bench were dealing with defendants lightly in this case.

WHITEHAVEN NEWS 28/9/22

BROKEN SAFETY LAMP IN LOWCA PIT.

-: 0:-UNUSUAL CASE HEARD AT WHITEHAVEN.

An umusual case was heard at Whitehaven on Thursday, when John Burns, coal hewer, Lowca, was charged with not having placed his safety lamp at least two feet from the swing of his pick on Soptember 4th, when em-

ployed in No. 10 Pit, Harrington Collieries.

31r. W. H. Chapman, prosocuting on behalf of the United Steel Co., Ltd., said the lamp had been broken, and it was obvious to any-one that a naked light might have caused an explosion and endangered hundreds of lives.

Mr. A. Millor, manager at No. 10 Colliery, stated that defendant reported having struck his lump with his pick. Defendant made the excuse that his mate had pushed the lamp over on to his pick. He told defendant that this was ridiculous. Witness considered this one of the most serious breaches of the Regulations.

Defendant, in an explanation to the Bench. stated that on this shift he had a new lad working for him, who was about 5ft, 10in, in height. When they commenced work he had the lamp 4-feet away from the swing of his pick, but the new man had moved it, and he (defendant) struck it.

By Mr. Chapman: The lamp was on the bottom when his mate moved it.
Mr. Chapman: There was an offence there.

Mr. Miller, replying to the Bench, said he had no reason to doubt defendant's statement as to a new man working with him.

The Chairman said defendant knew perfeetly well that this was most dangerous. If defendant had been in a "gassy" place there might have been an explosion. He would be WHITEHAVEN NEWS 12/10/22

A COLLIERY Pit, Whitehaven, was, PROSECUTION. at the Police Court on having failed to withdraw the workmen in a working place where there was more than 25 per cent. of inflammable gas. In this case there was actually 3 per cent.; and this prosecution very well illustrates one of the dangers which are a feature in all inquiries into the causes of explosions in the mines. Miners are anxious to send out of their working places as much coal as they can; and deputies are apt to strain a point, in sympathy with the men's anxiety not to lose pay for the coal available during their shift. Between them they may thus risk a terrible explosion.

This will no doubt be RUNNING one of the features of Risks. work in the pits that will be dealt with at the inquiry this week. It was dealt with at considerable length at the inquiry which was held concerning the Wellington Pit disaster. One of the points then urged by those who appeared on behalf of the minors was that they

ought not to be at a disadvantage, as to remuneration, by reporting the earliest appearance of the danger limit in gas present. The conditions are altered since then by the adoption of the electric lamp instead of the Davy lamp. with its grouze-protected oil flame. The latter is now used for testing only, it is understood. That makes the responsibility of those who have to do the gastesting all the greater; and it will be apt to leave the miners themselves less able to perceive the extent to which gas may be present.

Another point which Shor-Fining in will no doubt arise, FIRRY PITS. whatever the tained facts may be as to the explosion in Haig Pit, is whether there ought to be shot-firing in a flery mine. Of course all depends upon what is deemed a fiery mine; and all the old questions will naturally arise again -the ventilation, the occurrence of gas and to what extent, and also the extent of the occurrence of coal dust. The quastion of coal dust was one of the most important in the Weilington Pit inquiry. It was then made obvious, as had been known long before, that as a matter of ascertained physical experiment, fine coal dust under certain circumstances may tremendonsly increase the gravity of an explosion in the mine.

One point will no Miners' Terms, doubt be apparent, at this inquiry, as it is everywhere else at such inquiries, and that is the curious difference there is between the terms used in the mine and those used about the same things in other places than the mines. We hear at these inquiries and in the mines about "fire damp," "after damp," and so on. To understand this we have to remember that it is only within the last 120 years that even in the laboratory of the chemist has there been any previse knowledge of the nature of the gas given off from coal or of the gases which result from its explosion. It is a remarkable thing how little the miners themselves—other of course than the officials who have to pass examination know about the chemistry of the mine. After Wellington Pit explosion an attempt was made to interest the men in this subject by means of lectures; but the attempt itself was not a gratifying success, and still less was the response which the miners made to it.

