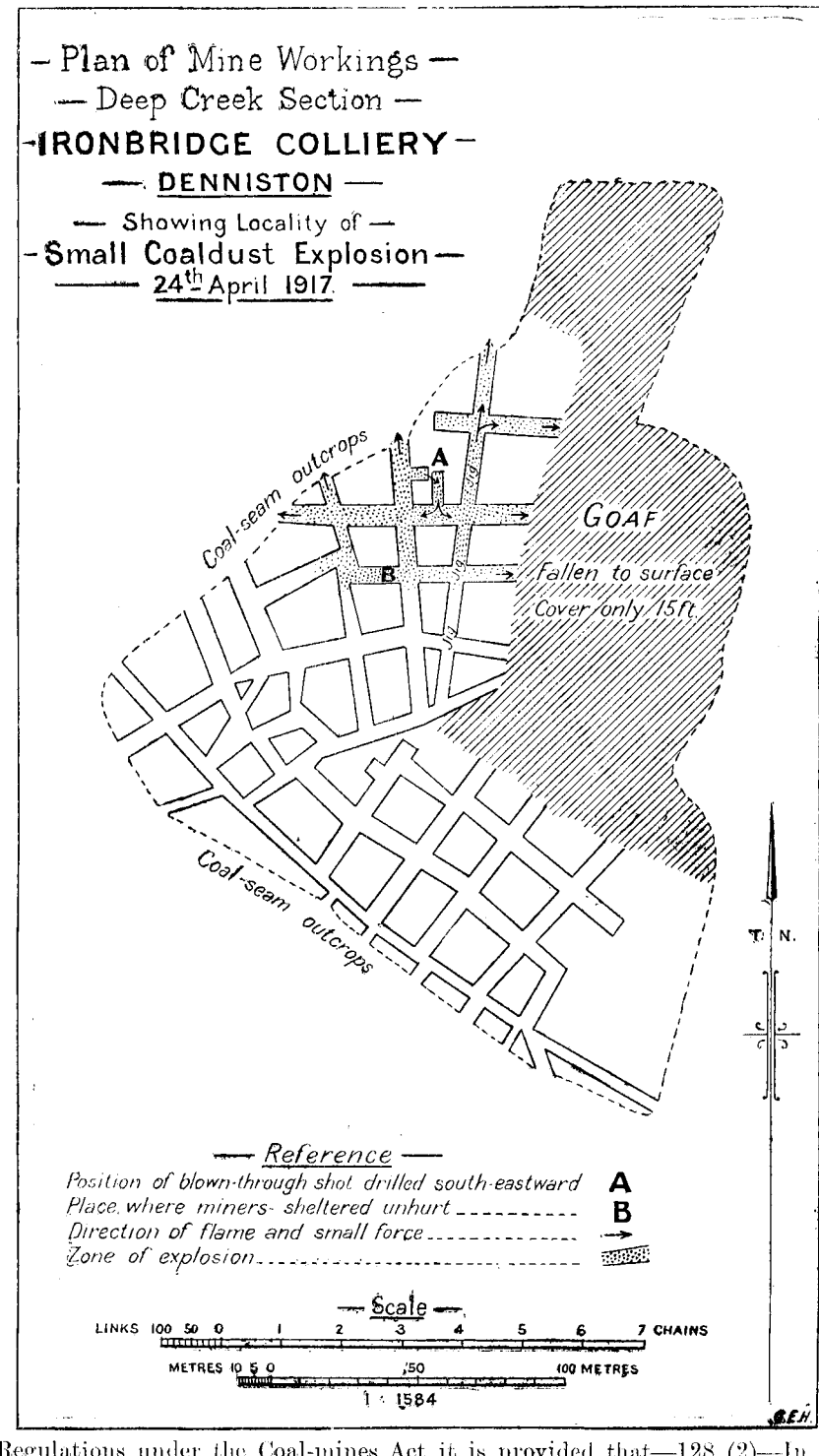
on the sides. Props were the only timber used: there were no bars to harbour dust. Owing to this small section of workings being surrounded by outcrops and holings to daylight, the ventilation was excellent and the mine-air as pure as that outside. I never saw a place more free of coaldust; but notwithstanding this I am perfectly satisfied that sufficient dust was created or raised by the blown-through shot to cause propagation, which was confined to a small area owing to increased moisture in the unaffected workings. After this occurrence the owners of the colliery very wisely introduced British Imperial explosives into their collieries at Denniston and Millerton.

This explosion must be taken as a serious warning, for had it occurred in a larger and drier section of the extensive Denniston collieries the loss of life might have been appalling.



In the Regulations under the Coal-mines Act it is provided that—128 (2)—In all coal-mines other than opencast workings which are not naturally wet throughout no other than a permitted explosive shall be used; and by 129 (*f*) (iii), In all cases in which permitted explosives are required by these regulations, no shot shall be fired unless a shot-firer has examined the floor, roof, and sides of all contiguous places within a radius of 5 yards of the place where the shot is fired, for coaldust, and has taken efficient steps to render any dust within that area harmless.

In the case of the Deep Creek section, prior to the explosion it would have been a very debatable question as to whether it was not naturally wet throughout; the examination, however, of the contiguous place was not made.

The necessary degree of moisture to render coaldust uninflammable is seldom naturally present in mines. It appears necessary that an additional regulation should be made prohibiting the use of any but permitted explosives in all coal-mines except lignite-pits and opencast workings.