

tity per life, with a certain water-gauge there is perfect safety, but in our opinion one mine may be better ventilated with 100 cubic feet per minute per life than is another with 300 cubic feet.

CONDENSING.

The principal underlying the action of the condenser is that the steam as it exhausts from the exhaust ports shall be exhausted into a closed vessel within which it is brought into contact with a flow or spray of water which condenses it, thereby producing a vacuum within such vessel. The production of this vacuum does away with the influence of the pressure of the atmosphere; that is the atmospheric pressure, which amounts to over 14.5lb. per square inch, is removed and as a result it does not act against or retard the motion of the piston. In practice it is found that the vacuum is not perfectly produced, and that a pressure varying from 2 to 4lb. per square inch exists within the condenser, consequently instead of the atmospheric pressure being entirely removed we find that there is a back pressure of from 2 to 4lb. acting against the piston. This reduces somewhat the efficiency of the condenser, and also that of the engine. Owing to the production of this partial vacuum, which amounts at its maximum to over 28 inches, we find that instead of 14.5lb. which is the pressure of the atmosphere pressing against the piston, we have what is equivalent to 12.5lb. pressure added to the pressure of the steam at the inlet end of the cylinder.

The best results of condensing are brought about when the vacuum produced by the condensation of steam by the water within the condenser is at its maximum; that is about 29 or 30 inches. Anything below 28 inches vacuum should be regarded as unsatisfactory. Mr. W. D. Horsnail asserts that 1 inch of vacuum means a saving of 1 per cent. in steam consumption; on this basis we find that for a 28-inch vacuum we have a saving of 28 per cent. in steam consumption, and for a 30 inch vacuum a saving of 30 per cent. The benefit of this saving is obvious, for we know that both the capital expenditure and running costs of the plant are favourably effected by it. As a result less boilers are required to generate steam, the engine cylinders and also the steam columns can be made smaller than those required for non-condensing engines; also for a given amount of power less coal will be consumed to produce it than would otherwise be the case.

ANOTHER NOTABLE CONVERSION.

The Herald at the penitent bench.

And now the Herald, like the Post, has repented of its evil ways.

One by one the friends of the strikers, never at any time a large number, are forsaking them. The latest to cast them off is the Halifax Herald. It may be that its repentance has come too late; all the harm possible has been done. The Herald asks what has happened since last August, and then rubs it into the strike leaders, the strikers, their abettors in the press,

and their advisors, in this honest fashion:

"What has happened since that time?"

"MEN—many of the best citizens of Glace Bay and the best miners in the world—have been living on strike allowances; their manhood impaired by eating bread that they did not earn.

"WOMEN and CHILDREN have had to leave comfortable homes and live in hastily constructed shacks and have experienced indescribable hardships in the winter weather.

"The savings of the workmen gone; business paralyzed; the credit of the mining towns impaired; the police courts busy with charges of intimidation, unlawful assembly, shooting, assaults, and an evident disrespect for law that has produced a painful impression in the public mind.

"The province is weary of having its most important industry carried on under the protection of the guns of the military and the batons of the police."

The Herald then proceeds to give what it considers the causes leading to the strike: "The U. M. W. discriminated against; refusal to remedy grievances, and refusal to recognize the U. M. W." A Board of Conciliation said there was no discrimination. The real causes leading to the strike, the Herald better understood once for all, were: 'Refusal to recognize the U. M. W.; refusal to go to Sydney to confer with U. M. W. representatives, and third, refusal to receive officials of the U. M. W.,' or summed up the cause and the one cause of the strike was the demand of a foreign order for recognition.

The Herald seriously tells us that the demand for recognition was dropped months ago. How sweetly soft the Herald is. Why, recognition was and is the one demand of the strikers. Their leaders asserted in the press that if the U. M. W. was recognized the other grievances could go to pot. Is the Herald so weak as not to perceive that recognition of the representatives of the U. M. W., even though the Yankee agitators returned home, was simply a recognition of the U. M. W. The Herald says Mr. Plummer has signified his willingness to meet committees of the men and to remove grievances if possible, and asks 'What more do the men want?' This is base desertion. What do the men want?; Why, they are standing out for what they came out for. They want recognition, that is the 'more' they want. The other two points were never denied any of the workmen of the Dominion Coal Co. The Herald now thinks a continuance of the strike idiotic. We thought its start partook of that character. The Herald caps the climax when it says that President Plummer has positively pledged 'to remove ANY and EVERY grievance.' Before the RECORD will believe that we must have it under the hand and seal of the new president. Of course no such proofs will be forthcoming. To undertake to remedy any and every grievance of some 5,000 or more men, would entail a greater expenditure of nerve and brain power than the management of a half a score of mergers. The Herald is very emphatic; it does not say 'any and every grievance will be heard', no, but that any and every grievance will be remedied. O; You Herald; You gay deceiver. But its all right. You have at last taken a wise stand in advising the men to give up a hopeless fight.