

THE USE OF THE BAROMETER AT MINES.

Our contemporary "Coal Age" publishes a series of letters debating the utility of the barometer as an indicator of the variations in the composition and distribution of mine air occasioned by alterations in the atmospheric pressure.

A correspondent from Ladysmith, B.C., points out the greater usefulness of the compensated, aneroid recording-barometer, and the small value of the mercurial barometer in giving warning of important changes of atmospheric pressure.

There can be little doubt that the changes in pressure shown by the mercurial barometer follow the effects of such changes of pressure on the mine gases at such a long interval as to make the mercurial instrument quite useless for purposes of warning.

It is doubtful also whether the recording-aneroid is of much utility, except possibly in mines where there are large unventilated goaves communicating with working places, but the recording barometer has the advantage of showing the tendency of the barometric pressure. Long observation of the barometric charts in one locality, combined with observations of the wind direction, temperature, season, and some knowledge of the local meteorological peculiarities, will enable the observer to deduce certain probabilities from the trend of the barometric curve which, if linked up with perusal of the reports of the Government Weather Bureau, will prove of advantage to mine managers who are aware of underground conditions in collieries under their control likely to be affected by sudden barometric changes, or by unusually high or low readings.

Nevertheless, although the reading and recording of the barometer has been compulsory at most collieries for a good many years past, no tangible correspondence or connection between colliery explosions and the state of the barometer has been worked out.

At one time so-called "colliery warnings" were issued in Great Britain, giving publicity to unusual conditions of the barometer, and for a number of years these warnings were a source of mirth to colliery engineers, because the conditions they announced had in all instances come to pass before the "warning" was printed.

The science of weather prediction has made great strides in recent years. Nothing was more striking in the log of the "R-34" dirigible's voyage across the North Atlantic than the accurate weather observations and predictions. By the use of wireless messages, and the more careful weather observations which will doubtless be arranged and recorded by all civilized governments in the future, it may be possible for colliery managers to be accurately forewarned of coming atmospheric pressure variations.

At the best, however, the usefulness of the barometer to the colliery manager is small, and the best safeguard is, as pointed out by the British Columbia correspondent, to see that the mining law requiring the provision of adequate ventilation is properly carried out.

Another correspondent states that the barometer in the United States will average a range of from $\frac{1}{2}$ to $\frac{3}{4}$ inch, and that the maximum range may be assumed as not exceed two inches, and this only rarely. Fluctuations of a greater range than this have we believe occurred on several occasions in Nova Scotia, particularly in the vicinity of the Bay of Fundy, but so far as ascertained no extraordinary conditions manifested themselves underground on these occasions of maximum and minimum readings.

The views of the readers of the Journal on this matter, and any particulars of unusual barometric variations with associated phenomena in connection with mine air which may have been observed, would be of general interest and value.

GROWTH, NOT "RE-CONSTRUCTION."

There is a tendency in trade periodicals in the United States to refer to conditions of trade and prices as they existed after the American Civil War, and from these conditions to draw inferences as to the trend of events after the Five Years' War just ended. Is it not a rather useless proceeding?

The territory, trade, transportation, population and industry of the United States when the Civil War ended were in no sense comparable or analagous to present day conditions.

During the Civil War the resources of America were wasted by civil strife, the destruction wrought affected only the citizens of the United States.

Preceding the entry of the United States in 1917 into the fight that commenced in 1914, the need of the Allies was the industrial opportunity of the United States, and probably the material help that was afforded by the munition plants of the United States to the Allies before April, 1917, was as effective in defeating the Germans as was the military and naval aid that was afforded after the United States came fairly into the lists. Further, thanks to her unimpaired and generous man-power, the United States was able throughout the progress of the war not only to afford ever increasing military assistance, but was able to keep her manufacturing establishments working at full pressure on supplies for the Allies.

Since the close of hostilities, as well as preceding this, the food-needs of Europe were met by exports from the United States in very large part, and this work of both necessity and mercy, proved also very profitable to United States producers.

Moreover, the future will probably make demands on American exports fully as heavy as the country can supply, which means a continuance of profitable merchandising in Europe with the profit accruing to the United States.

Why, therefore, should the United States fear the problems of re-construction? They have none. The