piece of engineering, quite beyond the usual standard (or lack of standard) as regards safety and workmanship.

At Deloro, a short distance north of Madoc, is situated the plant of the Deloro Mining & Reduction Company. Here are treated ores from Cobalt, Ont. The recent addition of a complete cobalt-oxide plant brings this establishment into line with the most modern smelters. Cheap hydro-electric power is used here also.

The three places mentioned, Sulphide, Madoc, and Deloro, were the three principal points visited. They represent the three most advantageous centres of industrial enterprise. But the whole surrounding country is rich in such minerals as iron pyrites, copper pyrites, mispickel (nearly always carrying gold), fluorspar, actinolite, iron ores, slate, etc., etc.

We are strongly of the opinion that the whole countryside is worth exploiting. In many respects unique advantages are offered. Labour is plentiful, intelligent, and cheap. Hydro-electric power is available at remarkably low cost. The country is well opened up by railways. Farming and dairying are the chief present activities. Consequently living is cheap. Moreover, the natural beauty of the district, the plentiful supplies of clean water, and the negligible number of mosquitoes and black flies, are features that are positive inducements.

Local mining men have already accomplished much. But there is a limit to their capabilities—a limit set by lack of funds and an absence of outside interest.

We feel no hesitation in recommending such of our readers as are seeking channels of profitable mining investment to look carefully into the mineral deposits and the mining possibilities of Hastings County.

THE COMPRESSED AIR QUESTION IN COBALT.

In fairness to the Cobalt Hydraulic Power Company it was our intention to withhold comment upon certain difficulties that have been encountered by the users of hydraulically compressed air until fuller data should have been secured. Unfortunately, several journals and newspapers have published foolishly exaggerated accounts of these difficulties. Therefore it is but just to place before our readers the facts, such facts, at least, as are now available.

In the first place, we learn that the compressed air supplied by the Cobalt Hydraulic Power Company has been found absolutely satisfactory, except in such drifts and small stopes as are remote from shafts and in which ventilation has always been defective. In these places the "Taylor" air, owing to its deficiency in oxygen, does not readily support the combustion of a candle. "Sunshine" lamps, however, have been proved to work satisfactorily.

As our readers will remember, the plant of the Cobalt Hydraulic Power Company is situated at Ragged Chutes, on the Montreal River, nine miles from Cobalt. The Taylor system of air compression is employed, whereby advantage is taken of the huge volume of falling water to compress air hydraulically. The air is then transmitted to the mines of Cobalt through a system of 20-inch iron pipes.

When, some weeks ago, certain operators at Cobalt found that candles would not burn readily in restricted mine workings where this compressed air was used, it was thought that the asphaltum coating inside the pipe line was doing the damage. Brief reflection shewed that this explanation was untenable.

Light was thrown upon the question by the analysis of samples of air forwarded by the Hydraulic Company to Dr. J. T. Donald, of Montreal. It was found that the compressed air, instead of containing 20 to 21 per cent. of oxygen, contained only 17.7 per cent., the loss naturally being due to the solvent power of water in intimate and continued contact with finely divided air. This, in itself, is quite sufficient to account for the difficulty in using candles.

Upon the announcement of these analytical results alarmists at once predicted that the miners would not be able to work in air so deficient in oxygen. Not content with this, despatches were sent to the press describing purely imaginary instances of suffering. These had not even a colourable foundation in truth. No hardship has been experienced. Particular pains have been taken by those interested to investigate the effect of the air upon miners working in remote faces and stopes. Up to the present the unanimous verdict is that no evil effect is perceptible.

For the past four years "hydraulic" air has been in constant use at the Victoria copper mine, Michigan. Whilst here the same complication as to illuminants has been met and overcome, the miners have been in no way affected. Eighty-five analyses of samples of air from representative coal mines of Scotland have recently been published. Of these, twenty-six fall below 20 per cent. in oxygen contents. The lowest figure reported is 16.55 per cent. Hence conditions such as outlined are by no means unusual. But a marked difference exists in the case of Cobalt. Here air low in oxygen is encountered only in a few isolated workings. The condition is not general. Nor is it in any degree alarming.

Let us now look for a moment upon the other side of the question. The Cobalt Hydraulic Power Company has invested an enormous amount of money in installing the largest natural air compressor in the world. The boldness and vigour of its promoters are beyond praise. The undertaking was one that involved startling engineering difficulties. It has been carried to a successful issue. To Mr. Charles H. Taylor, the Canadian whose ingenuity made the whole thing possible; and to the men who put up the money, Cobalt is deeply indebted. To them, also, we take off our hat. They have supplied Cobalt with a better, cheaper source of power.

Of those persons who thoughtlessly or otherwise pub-