

## THE 'TWENTY-SECOND ANNUAL MEETING OF THE MINING SOCIETY OF NOVA SCOTIA

The annual meeting of the Mining Society of Nova Scotia held in Sydney occupied the dates 15th and 16th April, and proved successful beyond the expectations of the most sanguine. The Council in making the arrangements for the meeting thought it wise to limit its duration to two days, but the event proved that a three-days' meeting would have been desirable.

The morning session of Tuesday was taken up by business proceedings, those tiresome but apparently inevitable details that waste valuable time, which most persons would rather see devoted to the reading and discussion of papers.

### Electric Motors for Mine Service.

In the afternoon a paper was read by Mr. C. H. Wright, of Halifax, on "The design of electric motors for service in mine operations." This paper was avowedly written to evoke discussion, and it was followed by one of the most animated and technically valuable discussions that the meetings of the Society have ever witnessed. The discussion embraced opinions on the relative merits of alternating and direct current for mining service, and the general opinion was that the choice depended largely upon the size of a colliery plant and the distance over which it was necessary to transmit current. Some interesting opinions were expressed on the subject of variable speed motors for ventilation fans, and here, so far as could be gathered, the concensus of opinion was that variations in the quantity of air required for ventilation could be best obtained by an arrangement of doors in the fan-drift, and that there was not much advantage in the complications of a variable speed-motor.

The number of speakers in the discussion and the interest evoked was evidence of how important a part electricity now plays in coal mining plants in Nova Scotia. Mr. Wright is the representative of the Canadian General Electric Company in Nova Scotia, and had to defend manufacturers of electrical machinery in general against the charge that the manufacturers expected too much from colliery engineers in the matter of specification and design of plants to meet certain conditions. The engineers present urged upon manufacturers the necessity of spending a little money in experiment and research to meet existing conditions, rather than to expect purchasers to do this all by themselves. Mr. Wright ably defended the manufacturer, but the contention of the engineer is not without foundation.

### Coal Resources.

Mr. McLeish, the statistician of the Department of Mines, showed a number of statistical graphs illustrating the mineral statistics of Canada. Mr. McLeish also exhibited interesting charts compiled from the monograph on the "Coal Resources of the World," issued in connection with the International Geological Congress of recent date. The outstanding impression obtained from these charts is the predominance of the North American continent in bituminous coal resources, and the fact that the bulk of the anthracite coals of the world is in and around the ancient Empire of China. Mr. McLeish is au fait with all figures relating to minerals in Canada and he was required to make his usual explana-

tions with regard to the method of valuation used by the Department in arriving at the amount of wealth represented by the annual mineral yield of the Dominion. Nova Scotians in the audience were a little astonished at the enormous coal resources of Alberta when compared with those of the Maritime Provinces, and also with the rapid increase in production in that Province. The only consolation to Nova Scotians is that their Province contains the quality, although Alberta apparently has the quantity.

### Microscopical Study of Coal.

In the evening a paper was read by Mr. A. J. Tonge, the mining engineer of the Dominion Coal Company, on "Coal, as seen under the microscope." The paper was introductory to a number of microphoto slides, obtained from the paleo-botanical laboratory of Mr. James Lomax, of Wigan, Lancashire, showing magnified sections of representative British coals, colored by hand to represent without exaggeration the actual appearance under the microscope. Mr. Tonge related some of the recent advances made in the microscopical study of coal, and the unique position occupied in this connection by Mr. Lomax, whose work has recently attracted widespread interest in mining circles. The slides were one of the outstanding features of the meeting, and were a revelation to all present of the tremendous possibilities of a science that is but in its infancy. In several of the slides layers of what are supposed to be leaf tissues were distinctly observable, and it has been suggested that these layers represented the successive seasons of the carboniferous forest, and that if it were possible to make a complete section of a coal seam, some idea of the number of seasons that were occupied in the making of the coal seam might be obtained, and an approximation arrived at as to the length of time represented. On some of the spore-cases which were visible in the slides it was explained that certain characteristic and ornamental pittings were to be seen, and it was hoped that by study under high magnification it might be possible to identify some of these "pittings" and perhaps aid in the correlation of seams by their identification and classification. Some of the vistas which are opening up to the scientific imagination through the microscopical study of coal sections lead to conclusions that savour of unbridled theorizing, but these same conclusions may seem commonplace to the next generation.

A few slides of Cape Breton coals were projected on to the screen without much magnification, and among these slides was one which showed a complete spore-case with the spores intact, a specimen stated by Mr. Lomax to be extremely rare, as it is only by chance that such a specimen should occur in the small piece of coal which is selected for the making of a section.

Mr. Tonge's paper was not followed by discussion, really because the hour was late, and other papers were to follow, but also because the feeling of the meeting was one of wonder at the beauty and novelty of the slides, and most of those present felt they required time to assimilate an entirely new idea and point of view.

### Accidents in Mines.

Following Mr. Tonge's paper, was one on "Accidents in Mines," by Hon. Robert Drummond, the editor of