asbestos industry, and should be removed. In the case of wheat and flour, for instance, standards are chosen by parties appointed for the purpose, and these are accepted by the trade as standards. Why cannot the same thing be done for asbestos? It should not be difficult for producers to agree upon standards, and to grade their ore accordingly.

Certainly closer attention to sampling and grading ore on the part of miners would tend to an increase of good-will between buyers and sellers, and would in the end be directly profitable to the miner.

## ON THE IGNEOUS ORIGIN OF CERTAIN ORE DEPOSITS.

By Frank D. Adams, McGill University, Montreal.

The numerous and elaborate investigations into the nature and origin of ore deposits which have been carried out in recent years have led to the somewhat startling conclusion that certain of the deposits in question are of igneous origin. In stating that they are of igneous origin it is not meant merely that heat was in some way connected with their genesis, but that using the term as it is employed by geologists, that these deposits have cooled down and solidified from a molten condition like the other igneous rocks with which they are associated. The most important investigations into this class of ore deposits are those of Professor J. H. L. Vogt, of the University of Christiania, the results of these, however, having been published principally in the Swedish language, are not so well known as they deserve to be, and as a valuable resumé of his investigations has just been given by Prof. Vogt in the Zeitschrift für praktische Geologie, (numbers 1, 4 and 7, 1893) it has been thought that a brief presentation of the facts known concerning these deposits might be appropriately brought before the Mining Association at this time, especially in view of the fact that although this is a comparatively small class of ore deposits, it seems to be one especially well represented in Canada.

In order to present this subject in as clear a manner as possible, it will be advisable first to say a few words on some recent investigations