my presence is unfortunate. In the first place I know that Mr. Gilmore would like to have been here himself to handle his paper, which he no doubt would have been able to do much better than I can, and secondly, in spite of what your Chairman has said, I am not thoroughly familiar with many of the points brought out in this paper. I am afraid there are a good many here to-night who are much more familiar with this subject than I am; however, I will read Mr. Gilmore's paper as he sent it to me.

## "NOTES ON FOUNDRY PRACTICE."

A Practical Treatise on the Principles of Iron FOUNDING.

By E. B. Gilmore, Foundry Expert, Toronto.

"I would rather lose \$100 than that easting should go to

the scrap pile."

This and similar remarks in the foundry has been the inspiration of the writer with his wide and varied experience to endeavor to help those who have been so unfortunate to be placed in that position to cause them to make the above remark. But all foundrymen are aware that the moulder is not born who will make every casting good, at the same time every casting that is bad is caused by an adequate cause, it is simply violating the laws that govern moulding. Good luck or bad luck in the foundry is nothing, it is simply doing right or doing wrong.

It is not the intention of the writer that any one reading this paper will at the finish be a full-fledged moulder and make no bad castings, but it is my object to give to the reader something which the regular apprentice in the foundry cannot always get unless he goes to some trades school or some other source which in a great many cases entails a large amount of study on the part of the student, and, if this is eliminated in the least degree, I will be amply rewarded for

the time spent in its preparation.

As the art of moulding is one of the most scientific branches of industry, and there are so many circumstances and conditions which are very often beyond the moulder's control, for instance, the sand in some districts is of very poor quality and requires special manipulation unknown to the