Monday, 16th April 1877.

Professor KELLAND, Vice-President, in the Chair.

The following Communications were read:—

1. On the Toothing of Un-round Discs which are intended to roll upon each other. By Edward Sang.

(Abstract.)

This paper contained an extension to discs of any shape whatever of the principles explained in the "New General Theory of the Teeth of Wheels," as applicable to circular discs.

2. On the Mineralogy of Scotland.—Chapter II.

By Professor Heddle.

In this chapter Professor Heddle submitted the results of the analyses of Orthoclase from fifteen localities; of Albite from four; of Oligoclase from eight; of Labradorite from eleven; of Andesiel from five; of Anorthite from three; and of Latrobite from two.

The three last minerals being now, for the first time, recognised as British species.

Dr Heddle also described a peculiar association of Orthoclase with Oligoclase, in crystals nearly of the form of the former, from certain localities; he drew the conclusion from his researches that the above felspars are all well individualised, if not by physical, at least by chemical characters; while they are probably more or less special to certain rocks.

3. Least Roots of Equations. By J. D. Hamilton Dickson.