NON–EUCLIDEAN GEOMETRY.

The Elements of Non-Euclidean Geometry. By D. M. Y.
SOMMERVILLE. London, G. Bell and Sons, 1914. 16mo.
xvi+274 pp.

FEW recent writers upon non-euclidean geometry have
approached their task with better chances of success than
attended Dr. Sommerville in the preparation of the present
volume. Anyone who has seen his scholarly and painstaking
" Bibliography of Non-Euclidean Geometry "* will realize
that in so far as a knowledge of what others have written
upon a subject is a desirable qualification, the present author
was most fortunately placed. Furthermore he is the happy
possessor of an excellent literary style. A book written by
such a writer should be interesting and stimulating; the
present book has both of these characteristics. The choice
of material is admirable, and the narrative continually illu-
mined by historical notes.

When the fairies were invited to the christening of the Sleep-
ing Beauty one of the sisterhood was unfortunately over-
looked, and her absence caused all the trouble that came
afterwards. So here, one thing is lacking, singleness of aim.
Says the author (page vii):

" It is hoped that the book will prove useful to the scholar-
ship candidate in our secondary schools who wishes to widen
his geometrical horizon, to the honours student at our uni-
versities who chooses geometry as his special subject, and to
the teacher of geometry in general who desires to see how
far strict logical rigour is made compatible with a treatment
of the subject matter capable of comprehension by school-
boys."

Does not this programme spell " failure " from the start?
Complete rigor and a treatment comprehensible by schoolboys,
even by Scotch ones, who indubitably work harder and know
more than Americans of like age, are so far incompatible that
it is quite useless to make the attempt. The needs of the
schoolboy and of the candidate for honors are so different
that a book intended for both will suit neither. In the
present work if we confine ourselves to the first four chapters,

* London, Harrison, 1911. Reviewed in the BULLETIN, vol. 18,
Feb., 1912.