SHORTER NOTICES.

Géométrie, Premier et Second Cycle. Par EMILE BOREL.
Paris, Librairie Armand Colin, 1905.   383 pp.

THIS is one of a series of elementary text-books written by
Borel to meet the demand caused by the recent activity for
the improvement of instruction in elementary mathematics in
France.   As the author states, it has been his aim to make a
book more in line with the ideas of the geometers and analysts
of the nineteenth century who have taught that "Geometry
is the study of groups of movements."   With this end in view
he has introduced the ideas of symmetry and displacements as
often as possible, thereby making many demonstrations simpler
and more concrete.

The book is divided into three parts.   Part one contains
about what is ordinarily called books I and II.   The treatment
however is quite distinctive.   The theorems concerning isosceles
triangles and parallel lines are proved by the use of symmetry.
The symmetry of regular figures is discussed at some length.
For use in constructions, the square is introduced as a third
instrument and many constructions are thereby made much
simpler.   Part two is the extension of the first part to space.
The ideas of translation and rotation are used quite freely.
Part three treats similitude, areas and volumes.   The trigono-
metric functions of the angle are given and used in the demon-
stration of many of the theorems which follow.   The book
closes with a short discussion of conics and a chapter devoted
to the approximate determination of plane areas.   A good col-
lection of problems is given at the end of each part.

C. L. E. MOORE.

Orthogonale Axonometrie.   Ein Lehrbuch zum Selbststudium.
Mit 29 Figurtafeln in besonderem Hefte.   By Dr. RUDOLF
SCHÜSSLER, Associate Professor of Mathematics in the Tech-
nical School at Graz.   Leipzig, Teubner, 1905.   170 pp.

IN this book the attempt has been made to develop axono-
metry as an independent method of representation without the
use of the horizontal and vertical planes of descriptive geometry
and without the assumption of any previous knowledge of con-
ical or parallel perspective.   The method of procedure is rather
similar to that of Pelz* but made much more concrete and ele-

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* See the Vienna *Sitzungsberichte*, vols. 81, 83, 90 and the Prague *Sitz-
ungsberichte*, 1885, 1895.