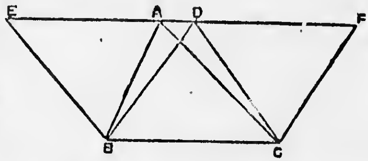
SEQUENCE.—The triangle ABC shall be equal to the triangle DBC.

CONSTRUCTION.—1. Produce AD both ways, to the points E, F. (*Postulate* 2.)

2. Through B draw BE, parallel to CA, and through C draw CF parallel to BD. (*Prop.* 31, *Book* I.)



3. Therefore each of the figures EBCA, DBCF, is a parallelogram. (*Def.* 35, *Note.*)

4. And EBCA is equal to DBCF, because they are upon the same base BC, and between the same parallels BC, EF. (*Prop.* 35, *Book* I.)

5. And the triangle ABC is the half of the parallelogram EBCA, because the diameter AB bisects it. (*Prop.* 34, *Book* I.)

6. And the triangle DBC is the half of the parallelogram DBCF, because the diameter DC bisects it.

7. But the halves of equal things are themselves also equal. (*Axiom* 7.)

8. Therefore the triangle ABC is equal to the triangle DBC.

CONCLUSION.—Wherefore, triangles, &c. (*See Enunciation.*) *Which was to be shewn.*

PROPOSITION 38.—THEOREM.

Triangles upon equal bases, and between the same parallels, are equal to one another.

HYPOTHESIS.—Let the triangles ABC, DEF, be upon equal bases BC, EF, and between the same parallels BF, AD.

SEQUENCE.—The triangle ABC shall be equal to the triangle DEF.

CONSTRUCTION.—1. Produce AD both ways to the points G, H. (*Postulate* 2.)

2. Through B draw BG parallel to CA, and through F draw FH parallel to ED. (*Prop.* 31, *Book* I.)

3. Then each of the figures GBCA, DEFH, is a parallelogram. (*Definition* 35, *Note.*)

4. And they are equal to each other, because they are on equal bases, BC, EF, and between the same parallels, BF, GH. (*Prop.* 36, *Book* I.)