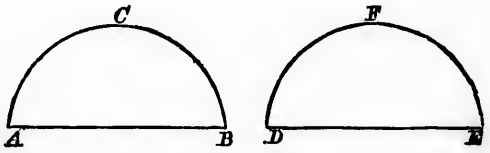
Proposition XXIV. Theorem.

Similar segments of circles, upon equal straight lines, are equal to one another.



Let *ABC*, *DEF* be similar segments of ⊙s on equal st. lines *AB*, *DE*.

Then must segment ABC=segment DEF.

For if segment *ABC* be applied to segment *DEF*, so that *A* may be on *D* and *AB* on *DE*, then *B* will coincide with *E*, and *AB* with *DE*;

∴ segment *ABC* must also coincide with segment *DEF*; III. 23.

∴ segment *ABC*=segment *DEF*. Ax. 8.

Q. E. D.

We gave one Proposition, C, page 150, as an example of the way in which the conceptions of Flat and Reflex Angles may be employed to extend and simplify Euclid's proofs. We here give the proofs, based on the same conceptions, of the important propositions XXII. and XXIII.