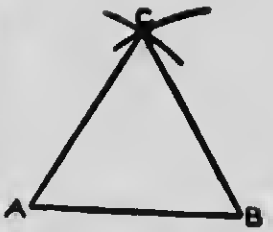
CHAPTER II.

Construction of Triangles.

1. Take a line **AB** of any length. First with **A** as centre, then with **B** as centre, and in both cases with the same radius **AB**, describe portions of circles so that they intersect, as indicated, at **C**. Then the three lines **AB, BC, CA** are all equal. The triangle **CAB**, which has thus all its sides equal, is called an **equilateral** triangle.



Adjust the bevel to each of the angles of this triangle, and compare their magnitudes.

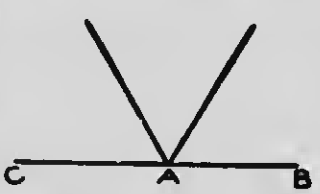
Construct equilateral triangles whose sides are 14, 21, 30, 40 . . . sixteenths of an inch.

Apply the bevel to all the angles of these triangles, and compare their magnitudes.

Cut accurately any one of these equilateral triangles from the paper, and, clipping off the angles, fit them on one another, and on the angles of the other equilateral triangles, so as to compare their magnitudes.

The result of our observations is that **the angles in an equilateral triangle are equal to one another, and are equal to the angles in any other equilateral triangle.**

Using the bevel, construct three angles adjacent to one another, in the way indicated in the annexed figure, each angle being equal to the angle of an equilateral tri-



NOTE.—It is well to mark on lines and angles their magnitudes, when known.