sum of the angles of the triangle zty is equal to two right angles. Therefore the sum of the angles of the triangle xzy is equal to two right angles.

Con.—Either every triangle has the sum of its angles equal to two right angles, or no triangle has the sum of its angles so great (see Prop. I.) as two right angles.

PROPOSITION III.



If the base CD of a triangle ACD (Fig. 6) be diminished indefinitely according to any law, while neither of the other sides becomes greater than a given line AB, the area of the triangle ACD becomes ultimately less than any finite

space L (Fig 5); and the sum of its angles does not ultimately differ from two right angles by any fuite angle.

For, within the area L take a point F. Then, by choosing the a radius sufficiently small, we can describe, with F as a centre, a circle lying wholly within L, and therefore less than L. Draw a diameter EG, with a radius HF perpendicular to it. Join EH; and from



any point M in EH let fall MN perpendicular on EF. By bisecting NF, and again bisecting the parts obtained, and so on, we can divide NF into n equal parts; where n may be taken greater than any number that can be named. Let NF be so divided into the n equal parts,