LIB. II. area Sectoris $ACD = \frac{1}{2} s$, a qua auferatur Triangulum $ACD = \frac{1}{2} AC.DE = \frac{1}{2}.fin.s$, remanebitque Segmentum $AD = \frac{1}{2} s - \frac{1}{2}.fin.s$, quod æquale esse debet semissi semicirculi ADB, at area semicirculi est $= \frac{1}{2}\pi$: unde erit $s - fin.s = \frac{1}{2}\pi = 90°$, ideoque $s - 90° = fin.s$. Ponatur $s - 90° = u$; erit $fin.s = cof.u$, & hanc ob rem $u = cof.u$. Per Problema ergo primum erit $u = 42°, 20', 47'', 14'''$; hincque $s =$ angulo $ACD = 132°, 20', 47'', 14'''$, & angulus $BCD = 47°, 39', 12'', 46'''$. Ipsa vero Corda AD erit $= 1, 8295422$. Q. E. F.

535. Sic igitur in Circulo Segmentum abscinditur cujus area sit totius Circuli pars quarta, Segmentum autem semissi Circuli æquale est ipse semicirculus ejusque Corda Diameter. Simili modo Segmentum inveniri potest, quod sit triens totius Circuli, quod sequenti Problemate investigemus.

PROBLEMA V.

TAB. XXIX. Fig. 115. *Ex puncto Peripheriæ* A *educere duas Cordas* AB, AC, *quibus area Circuli in tres partes æquales dividatur.*

SOLUTIO.

Posito Circuli Radio $= 1$, & hemiperipheria $= \pi$, sit Arcus AB vel $AC = s$; eritque area Segmenti AEB vel $AFC = \frac{1}{2} s - \frac{1}{2}.fin.s$: at area Circuli est $= \pi$; unde, cum Segmenti AEB area debeat esse triens Circuli, fiet $\frac{1}{2} s - \frac{1}{2}.fin.s = \frac{\pi}{3} = 60°$; seu, $s - fin.s = 120°$, ideoque $s - 120° = fin.s$. Sit $s - 120° = u$, erit $u = fin.(u + 120) = fin.(60 - u)$.

Arcus