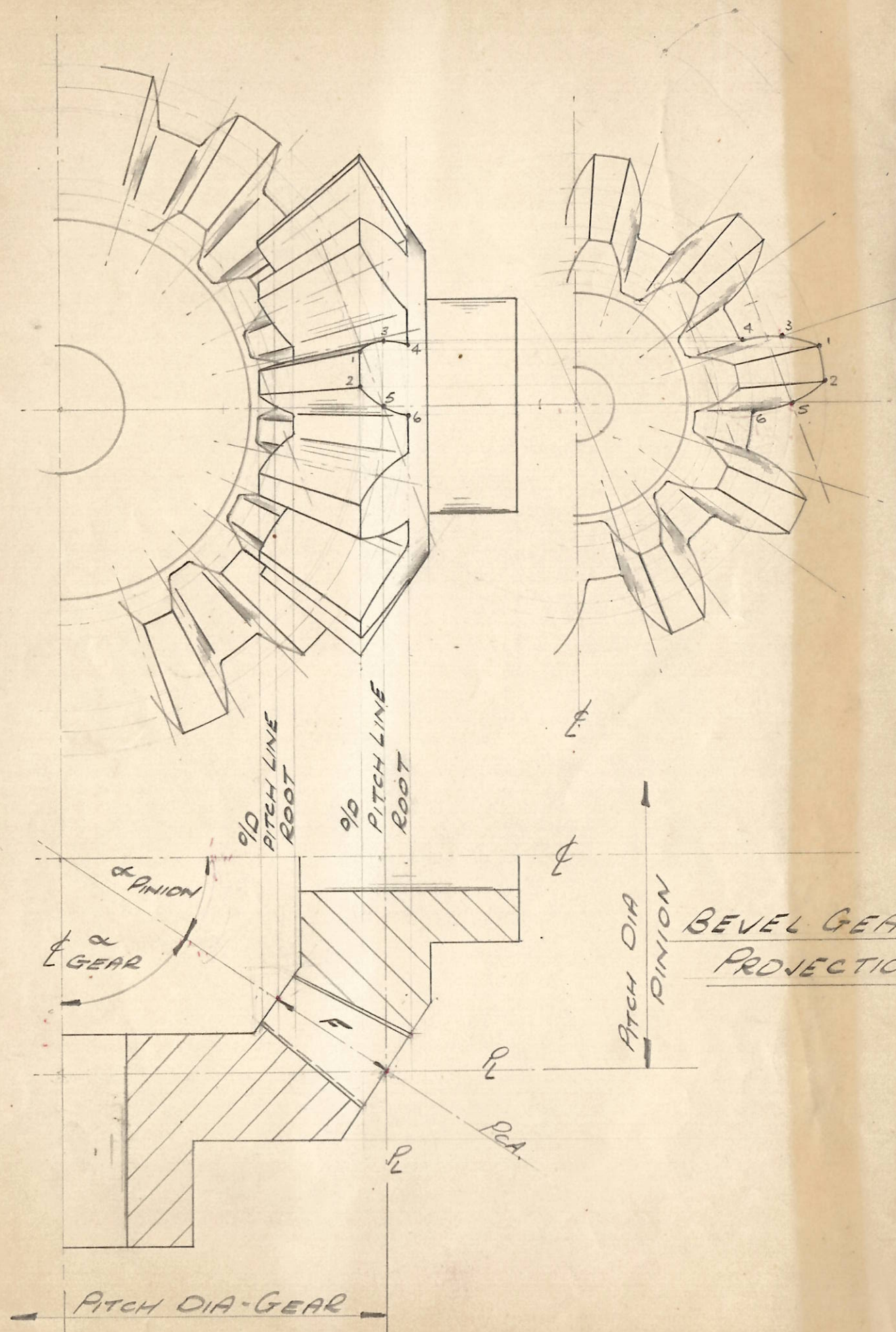




LESSON ON BEVEL GEAR
CALCULATIONS - LAYOUT &
PROJECTION.
SEE LESSON PLAN # 3.

EXAMPLE #1

CAL^E $P_{NION} = 10T$ $G_{EAR} = 15T$ - 3 D.P.

$P.D. P_{NION} = \frac{10}{3} = 3.333$

$P.D. G_{EAR} = \frac{15}{3} = 5.000$

$ADDENDUM = \frac{1}{3} = .333$

$DEDENDUM = \frac{1.57}{3} = .385$

$PITCH\ CONE\ ANGLE\ (P_{NION}) = \tan \alpha = \frac{10}{15} = .6666$
 $= 33^{\circ} 40'$

$PITCH\ CONE\ ANGLE\ (G_{EAR}) = 90^{\circ} - 33^{\circ} 40' = 56^{\circ} 20'$

$PITCH\ CONE\ RADIUS = \frac{5.000}{2 \times .8323}$
 $= \frac{5}{1.6646} = 3.01$

$FACE\ WIDTH\ F = \frac{3.01}{3} = 1.003$

T. DUGELBY.

BEVEL GEAR LAYOUT

& PROJECTION.

1. ILLUSTRATES & DEMONSTRATES
THE IMPORTANCE OF ORTHOGRAPHIC
PROJECTION.

2.

