

# ENSC 2113

## Engineering Mechanics: Statics

Lecture 28  
Sections 8.2-8.3

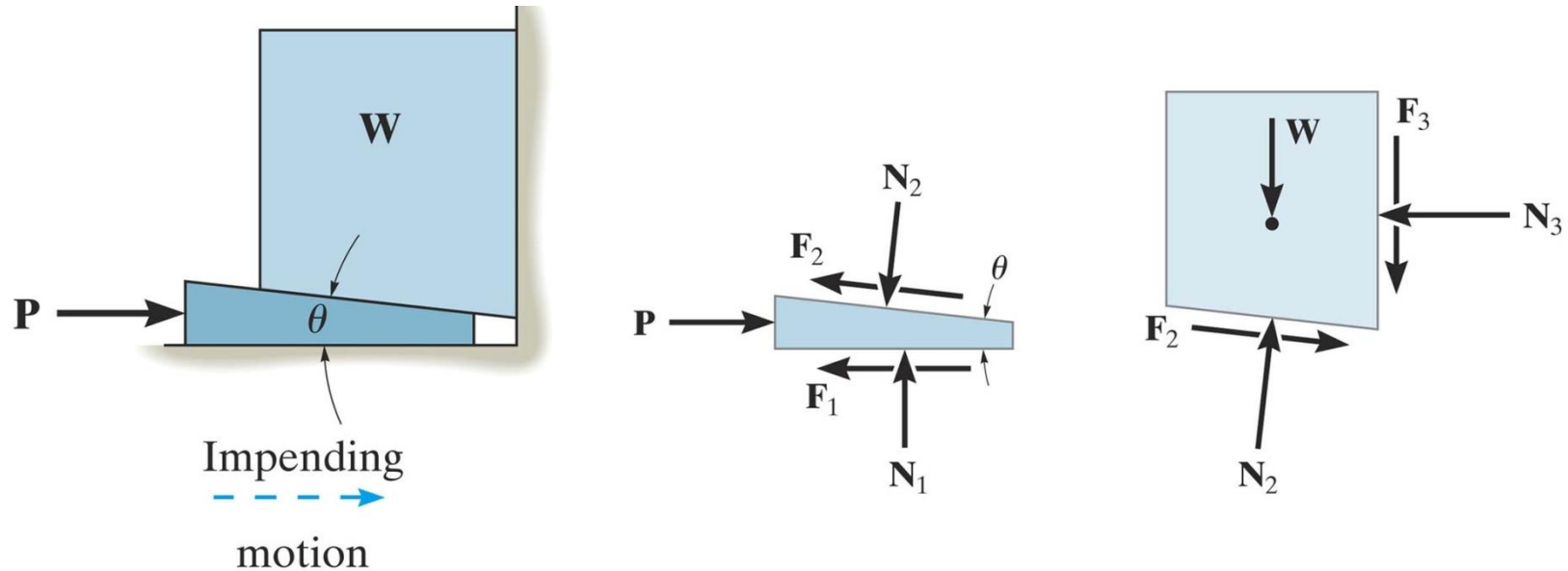


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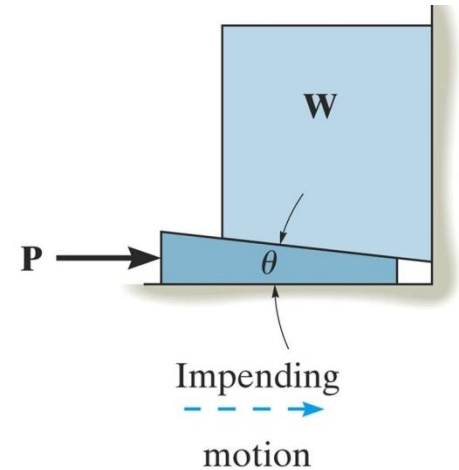
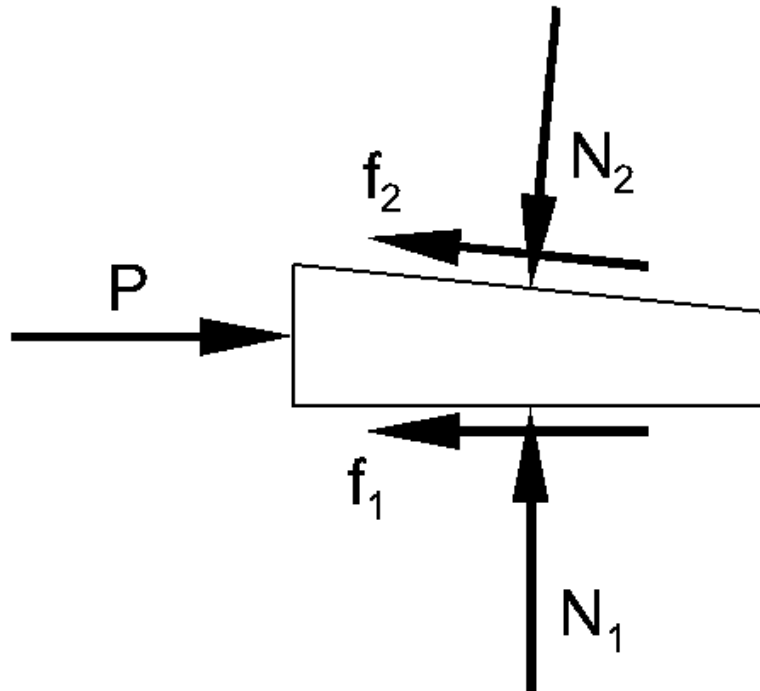
## 8.3: Wedges

A *Wedge* is a simple Machine that can be used to move heavy objects - It is a special case of a frictional problem.

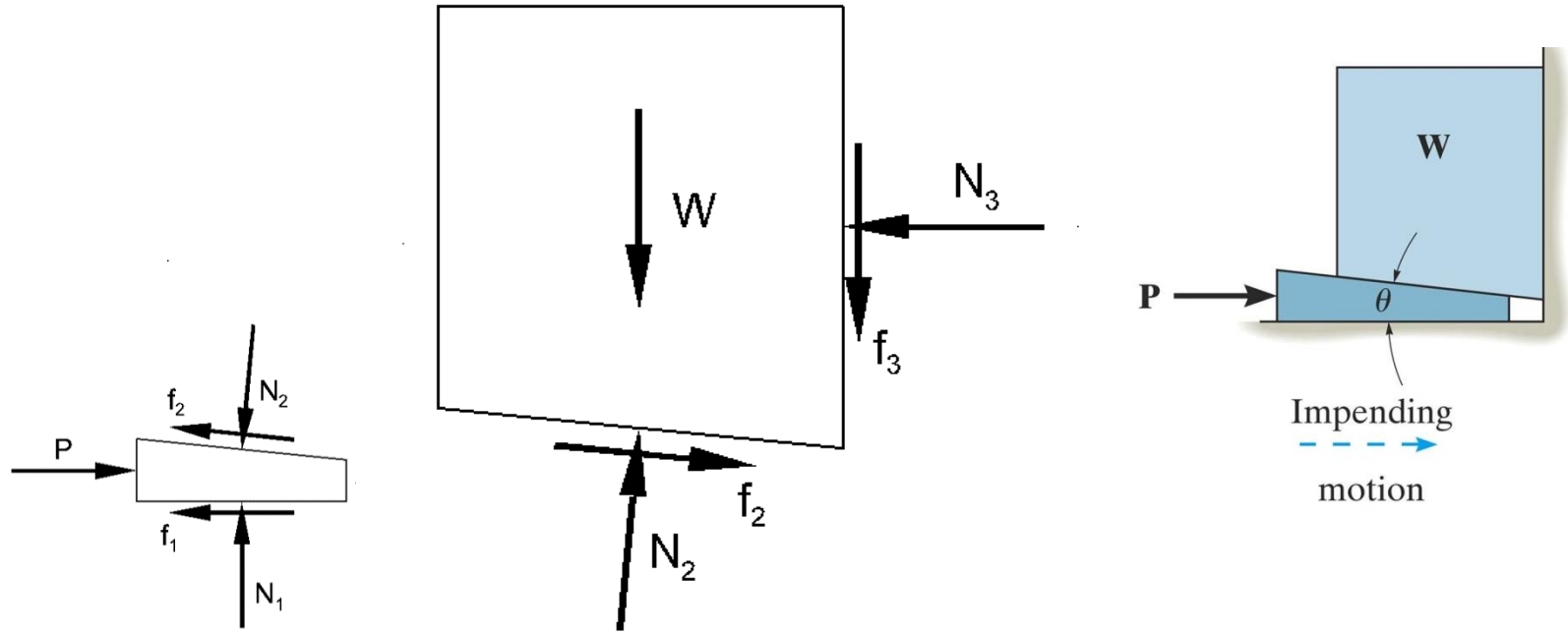
Neither the block nor the wedge can tip



**Recommendation:** Draw the **FBD** for the wedge first.  
Friction must be opposite to direction of impending motion.



Next, draw the **FBD** for the block, placing forces shared with the wedge equal and opposite of that FBD.



Now apply the equilibrium eqns and solve for unknowns

$$\sum F_x = 0 \quad \sum F_y = 0$$

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