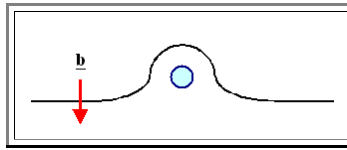


Exercise 5.3-1

Dislocation Movement Around Obstacle

Illustration

A dislocation, moving in the direction of its Burgers vector, encounters an obstacle and starts to move around it as shown



Use the figure and draw in:

1. Line direction $\underline{t}$ and the force $\underline{F}$ (direction and rough magnitude) acting on the dislocation for the case shown
2. The position of the dislocation line after it has moved well beyond the obstacle (make a new picture with sufficient space).
3. Draw in and discuss the forces on the screw-type segments produced. How do the segments react to the forces? Can the forces have different signs despite the same Burgers vector everywhere? If yes, why? What will the final result be?



No solution given