



**FIGURE P4-7**

Problem 4-20 Power hacksaw. Adapted from P. H. Hill and W. P. Rule. (1960). *Mechanisms: Analysis and Design*, with permission.

†4-20 Figure P4-7 shows a power hacksaw, used to cut metal. Link 5 pivots at  $O_5$  and its weight forces the sawblade against the workpiece while the linkage moves the blade (link 4) back and forth on link 5 to cut the part. It is an offset slider-crank mechanism. The dimensions are shown in the figure. For one revolution of driving link 2 of the hacksaw mechanism on the cutting stroke, find and plot the horizontal stroke of the saw blade as a function of the angle of link 2.

\* This figure is provided as an animated Working Model file on the CD-ROM. Its filename is the same as the figure number.