

# PROBLEM 1.50

Two particles, each of mass  $m$ , are attached to the ends of a cord of length  $2l$  and negligible mass. The cord is suspended from a fixed point by a ring of mass  $M$  and radius  $r$ , as shown in Fig. P1.50. The cord is held straight out horizontally by the ring. The ring is released from rest in the horizontal position. Determine the speed of the particles at the instant the cord makes an angle  $\theta$  with the horizontal.

