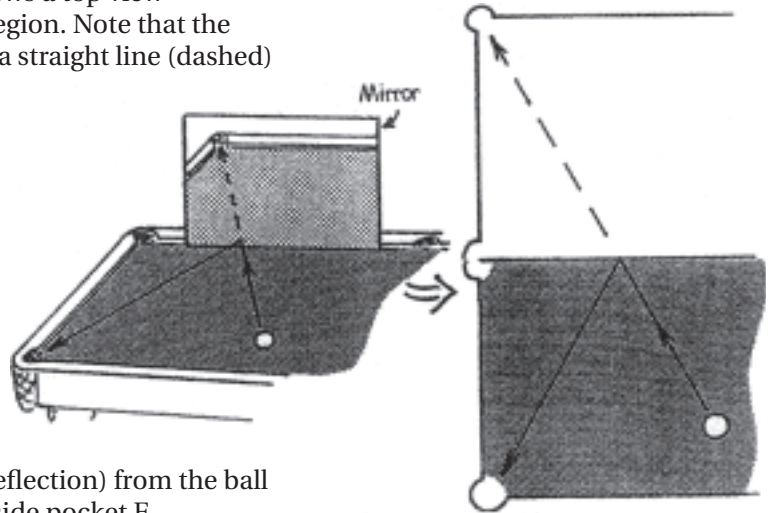


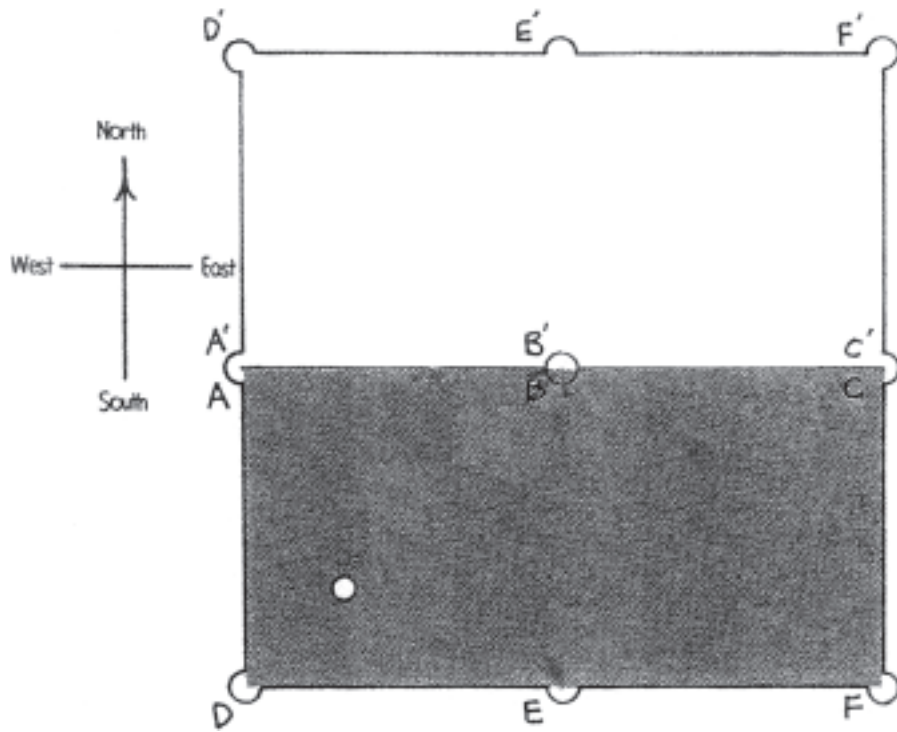
**Concept-Development  
Practice Page** **29-5**

***Pool Room Optics***

The law of reflection for optics is useful in playing pool. A ball bouncing off the bank of a pool table behaves like a photon reflecting off a mirror. As the sketch shows, angles become straight lines with the help of mirrors. The diagram shows a top view of this, with a flattened “mirrored” region. Note that the angled path on the table appears as a straight line (dashed) in the mirrored region.



1. Consider a one-bank shot (one reflection) from the ball to the north bank and then into side pocket E.



- a. Use the mirror method to construct a straight line path to mirrored E'. Then construct the actual path to E.
- b. Without using off-center strokes or other tricks, can a one-bank shot off the north bank put the ball in corner pocket F? \_\_\_\_\_ Show why or why not using the diagram.

**CONCEPTUAL PHYSICS**