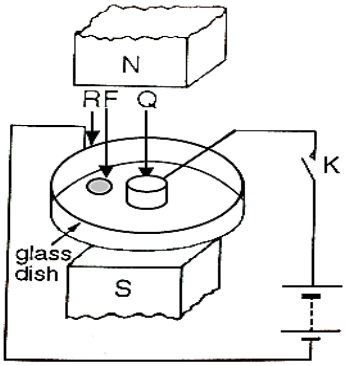
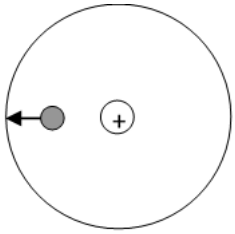
23 In the diagram below, the inner wall of a glass dish is lined with a copper ring R and a copper rod Q is placed exactly in the middle of the dish. Rod Q is connected, via a switch K, to the positive plate, and ring R is connected to the negative plate of a battery. The arrangement is placed between the poles of a strong magnet. The dish is then filled with an electrically conducting solution and a small float F added to indicate any motion of the liquid.

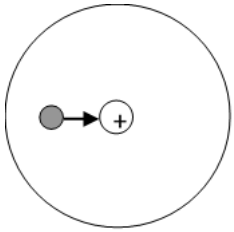


When switch K is closed, current flows from Q and radially towards ring R. Which sketch indicates correctly the possible motion of the float as seen from above when switch K is closed?

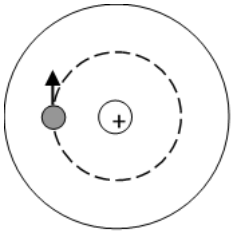
A



B



C



D