

## Ex 9 What is the current?

- 1 The circuit in Fig. 1 is set up like that of an ordinary torch. An ammeter can be inserted at various points in the circuit.

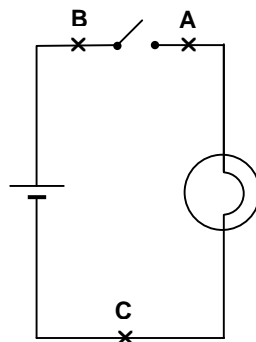
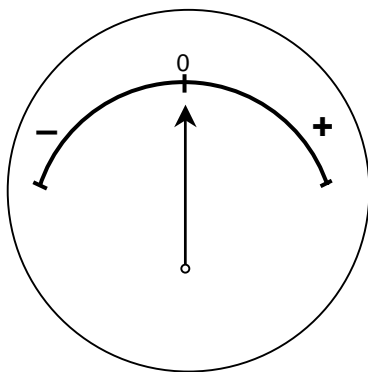


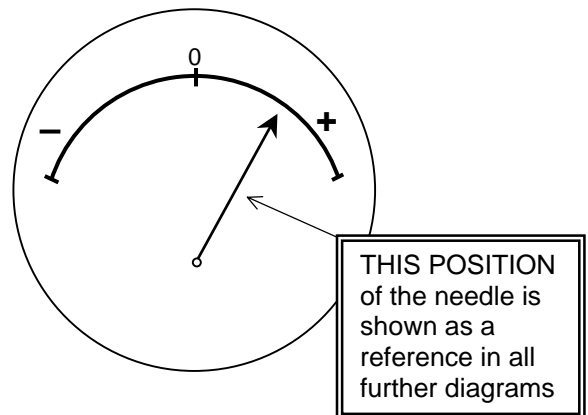
Fig. 1

When the ammeter is inserted at **point A** it appears as shown below:

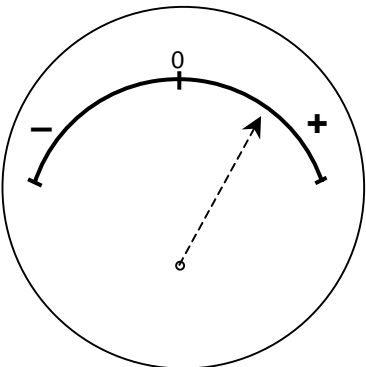
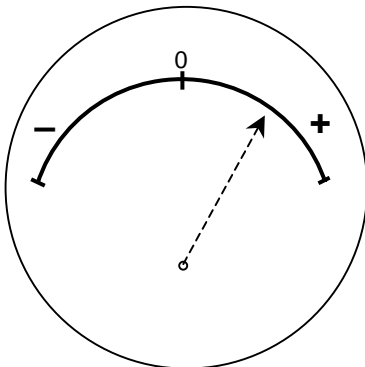
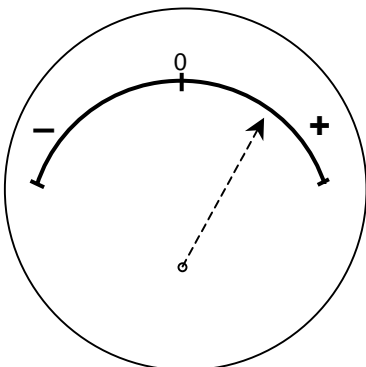
- (i) before the switch is closed



- (ii) after the switch is closed

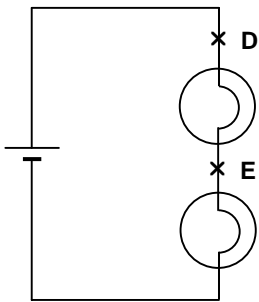


Mark in the approximate position of the **needle** when the ammeter is inserted in the circuit in Fig. 1 at -

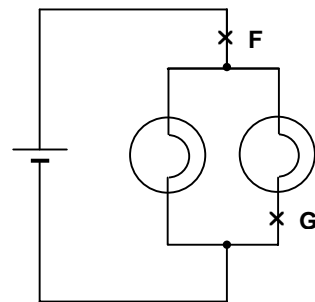
<p>(a) <b>point B</b> <u>before</u> the switch is closed</p> 	<p>(b) <b>point C</b> <u>before</u> the switch is closed</p> 	<p>(c) <b>point C</b> <u>after</u> the switch is closed</p> 
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**Ex 9**

**2** The circuit of Fig. 1 is modified by adding a second **identical** globe to give the circuits of Figs 2 and 3.



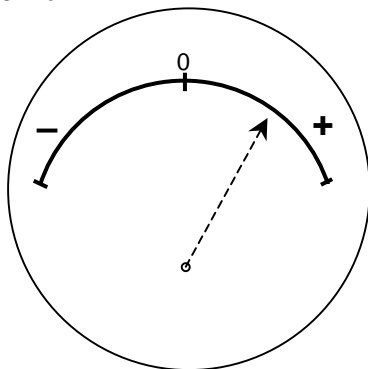
**Fig. 2**



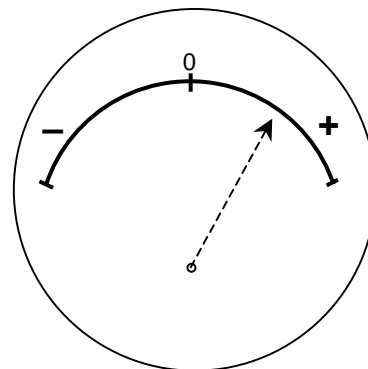
**Fig. 3**

Mark in the approximate position of the **needle** when the ammeter is inserted in the circuits in Figs 2 and 3 at -

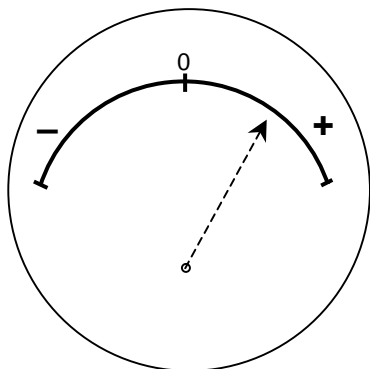
(a) **point D**



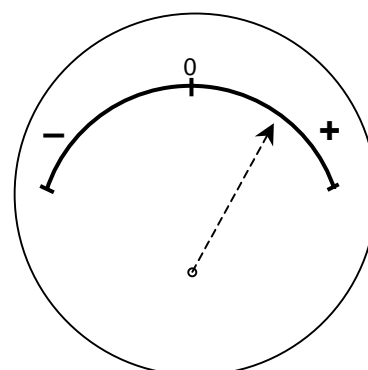
(b) **point E**



(c) **point F**



(d) **point G**



3 A switch is added to the circuit of Fig. 2 to give that of Fig. 4.

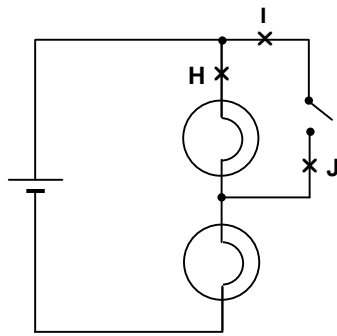
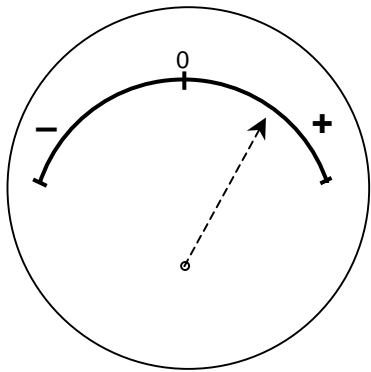


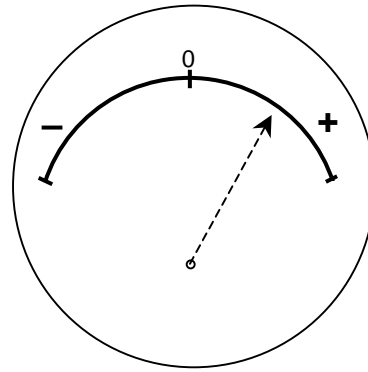
Fig. 4

Mark in the approximate position of the **needle** when the ammeter is inserted at -

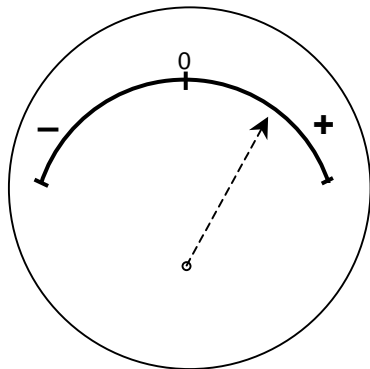
(a) **point H** with the switch open



(b) **point I** with the switch open



(c) **point H** with the switch closed



(d) **point J** with the switch closed

