Explain why the bulb would not glow in the arrangement shown in fig

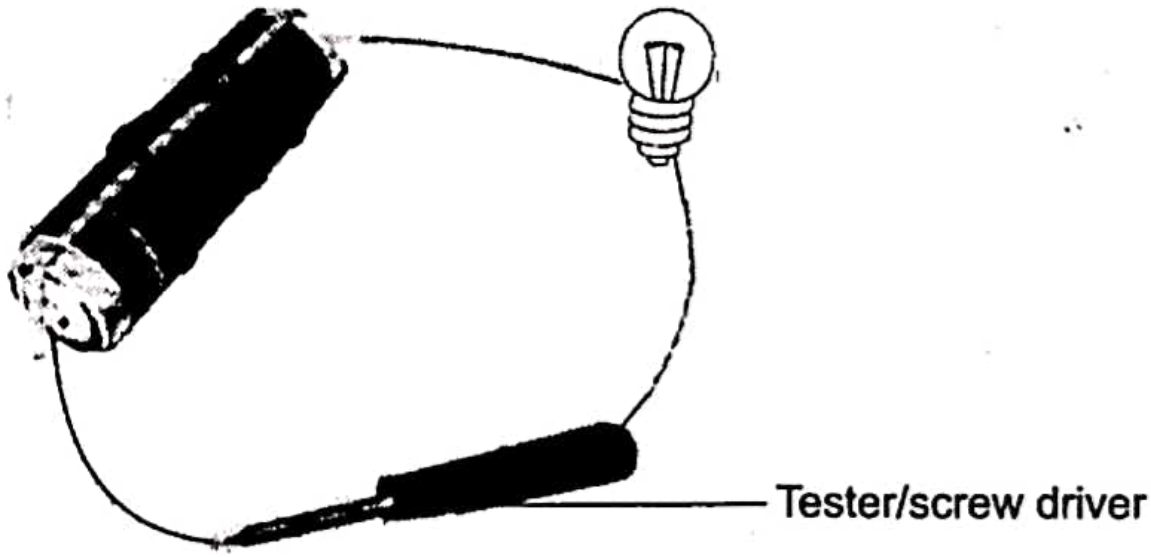


Fig. 12.8

Ans: The bulb would not glow in the arrangement shown in figure because the one end of tester/screw driver is made up of plastic which does not allow the electric current to flow through it.

´ . Fill in the blanks:

(a) A device that is used to break an electric circuit is called_____

(b) An electric cell has_____

Ans:

(a) switch

(b) two

. Mark 'True' or 'False' for the following statements:

(a) Electric current can flow through metals.

(b) Instead of metal wires, a jute string can be used to make a circuit.

(c) Electric current can pass through a sheet of thermocol.

Ans:

(a) True

(b) False

(c) False.

. Would the bulb glow in the circuit shown in Fig.

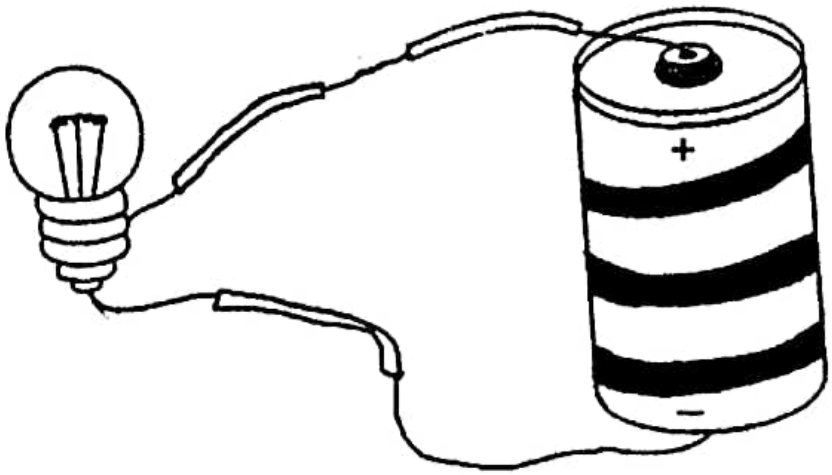


Fig. 12.11

Ans: Yes, the electric circuit is closed so the bulb will glow.

Using the"conduction tester" on an object it was found that the bulb begins to glow. Is that object a conductor or an insulator? Explain.

Ans: Yes, if the object is good conductor of electricity then current will pass through conduction tester and the bulb will glow. Hence the object will be a conductor of electricity.

Why should an electrician use rubber gloves while repairing an electric switch at your home? Explain.

Ans: Our body is good conductor of electricity and rubber is insulator. During repairing work if the body comes in contact with current carrying wire then there will not be any accident as rubber does not allow the passage of current through it. Hence electrician uses rubber gloves while repairing an electric switch.

The handles of the tools like screwdrivers and pliers used by electricians for repair work usually have plastic or rubber covers on them. Can you explain why?

Ans: Plastic or rubber is an insulator which does not allow electric current to pass through it. The handles of the tools like screwdrivers and pliers used by electricians for repair have covering of plastic or rubber so that electric current may not pass through these tools to the body of the electrician to harm him.

1. What is the direction of flow of current in a dry cell?

Ans: . The current flows in closed circuit from +ve to –ve terminal of cell.

2. Name the +ve terminal of dry cell.

Ans:. Carbon rod with a metal cap on it.

3. Name the -ve terminal of a dry cell.

Ans: Zinc metal plate.

4. What is dry cell?

Ans: It is a device which converts chemical energy into electrical energy.

5. What is solar cell?

Ans: A device which converts solar energy into electrical energy.

6. What is open circuit?

Ans: An electric circuit in which electrical contact at any point is broken is called open circuit.

7. Write one use of insulators.

Ans: Insulators are used in making switchboard, handles of testers, screw drivers.

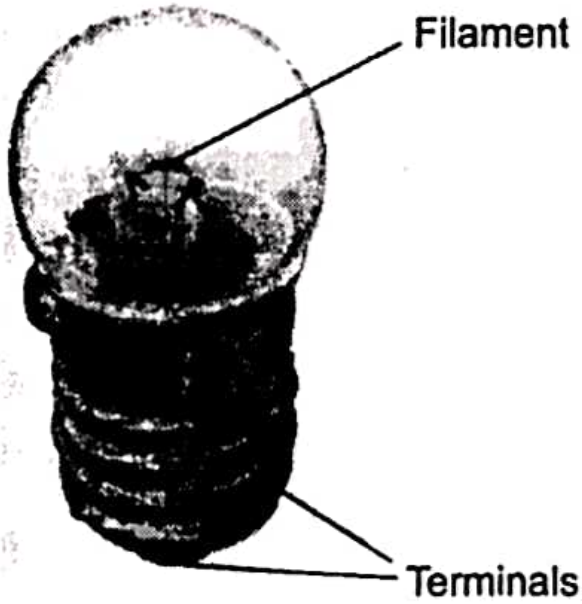
Mention two advantages of a dry cell.

Ans:

1. It converts chemical energy into electrical energy.
2. It is light and small in size.

. Draw a diagram showing the two terminals of a bulb.

Ans:



.(1)What is electric circuit?

(2)How many types of electric circuit are there? Define them.

Ans:

(1)The diagram that shows the path of electric current is called electric circuit.

(2)There are two types of electric circuit:

(a) Open electric circuit

(b) Closed electric circuit

(a)**Open electric circuit:** The circuit in which electrical contact at any point is broken is called open electric circuit.

(b)**Closed electric circuit:** The circuit in which electric current flows from one terminal of a cell or battery to the other is called a closed circuit.