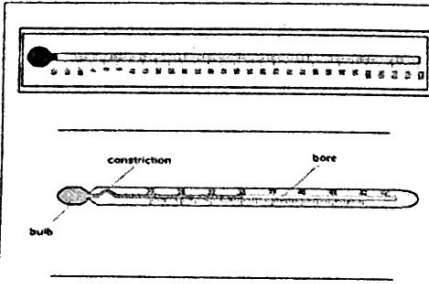
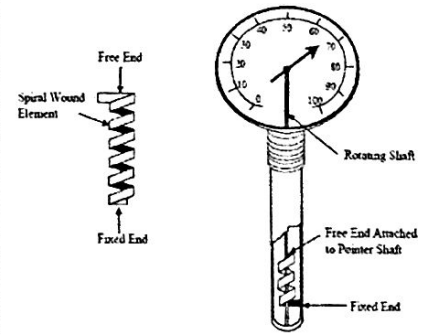


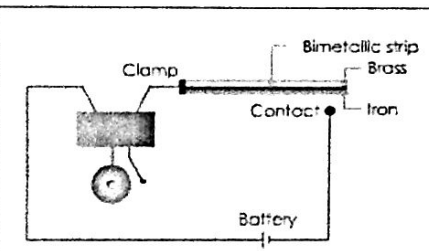
USING THE PRINCIPLE OF EXPANSION & CONTRACTION IN APPLIANCES



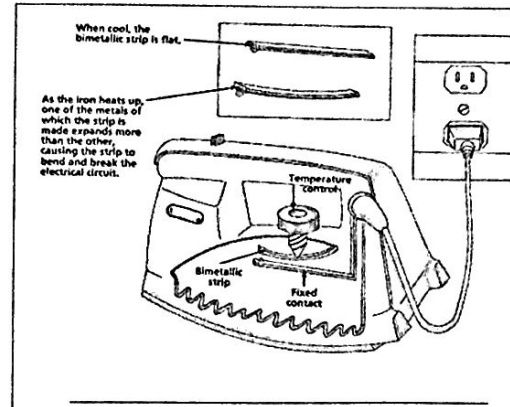
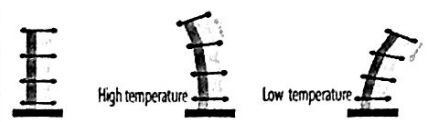
- a) It works based on the EXPANSION and CONTRACTION of the liquid mercury.
- b) The LIQUID/MERCURY in the thermometer responds quickly to TEMPERATURE changes by expanding & contracting uniformly.



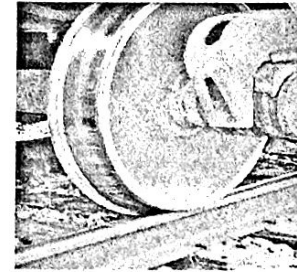
- a) Within it, there is a ROTATING SHAFT made of METAL (outer part) and BIMETALLIC STRIP (inner part).
- b) Heat from hot objects causes COPPER/BRASS to expand more than IRON/STEEL and the coil turns and moves the GAUGE.
- c) This type of thermometer is used in SOLIDS and LIQUIDS.



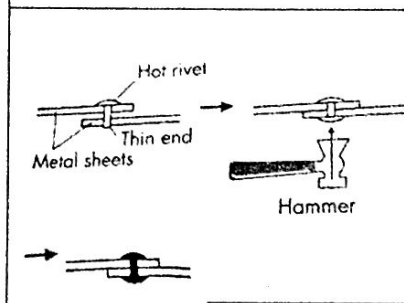
- a) BIMETALLIC STRIP inside the fire alarm EXPANDS and CONTACTS to open and close the circuit.
- b) It is made of two metals attached together, BRASS and IRON.
- c) When the strip is heated, COPPER expands more than IRON and the strip curls.
- d) The strip will curl in opposite direction when it COOLS as BRASS contracts more than IRON.



- a) TEMP. CONTROL is a device that can control the POWER of an electrical equipment by turning it on or off.
- b) It consists of a BIMETALLIC STRIP similar to the one used in fire alarm.



- a) Metal tyre is slightly SMALLER than the wheel frame.
- b) The tyre is heated so that it EXPANDS and then is fitted onto the wheel frame and left to CONTACTS. On cooling, the tyre SHRINKS to its original size and now firmly attached to the wheel.



- a) Metal RIVETS are used to bind two METAL sheets together. They are heated strongly first before being placed into the HOLES in the metal sheets.
- b) While the rivet is still HOT, the thin end is hit with a HAMMER.
- c) Upon cooling, the rivet contracts and pulls the two metal sheets tightly together.