

LAB 1: HEAT EXPANSION OF SOLIDS

AIM: To investigate the different types of expansions in solids

APPARATUS & MATERIALS:

bar and gauge	bunsen burner
ball and ring	tongs
bimetallic strip	water

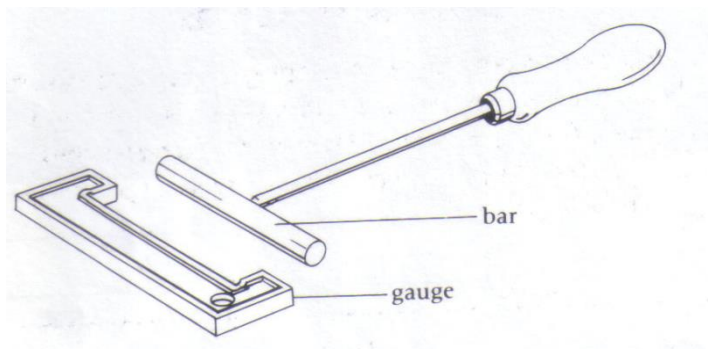


Diagram 1: Bar and Gauge

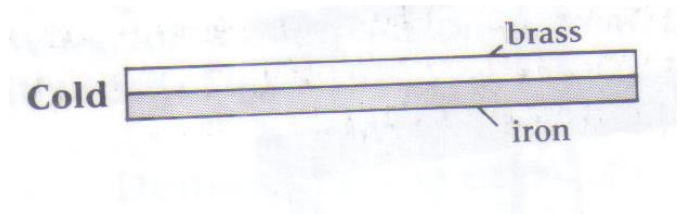


Diagram 3: Bimetallic Strip

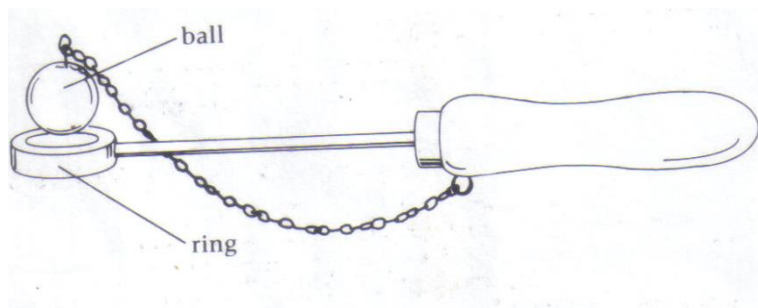


Diagram 3: Ball and Ring

METHOD:

- Fit the ball into the ring when cool and fit the bar into the gauge when cool.
- Heat the ball and the bar over the Bunsen burner flame and test the fit again.
- Cool the ball and bar once more and test the fit again.
- Record all the observations.

- Observe the bimetallic strip when it is cool. Heat the bimetallic strip and record the observations.
- Cool the bimetallic strip and record all observations.

THEORY:

- State the different types of expansion that occur in solids.
- Explain how expansion occurs in solids.

OBSERVATIONS:

- State the observations for the ball and ring, bar and gauge and the bimetallic strip. (use a separate paragraph for each observation)

CONCLUSION:

- Explain the observations that occurred in the experiments and which type of expansion occurred.
- Discuss the bimetallic strip and explain its behaviour on heating.