

ELECTRICAL MEASUREMENT & MEASURING INSTRUMENTS

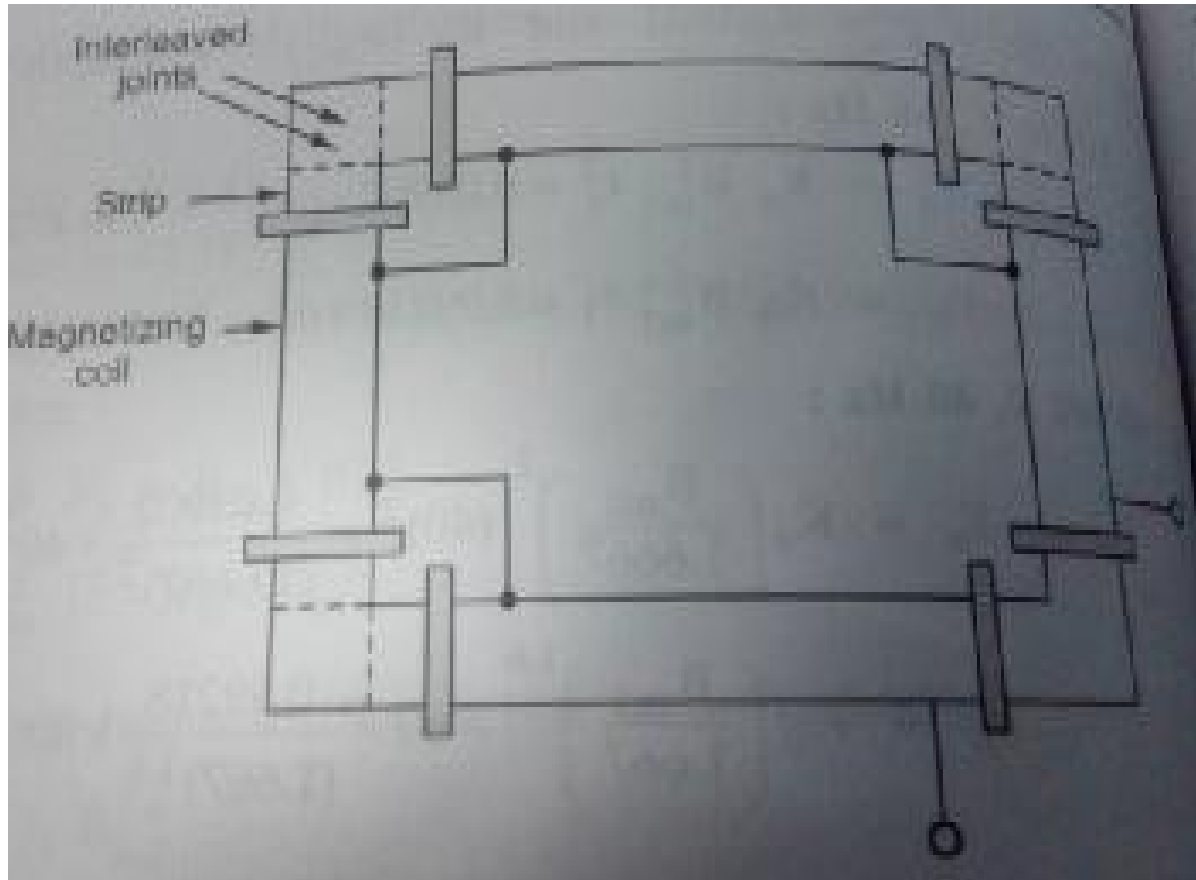
UNIT 4 Part (ii)

MAGNETIC MEASUREMENT

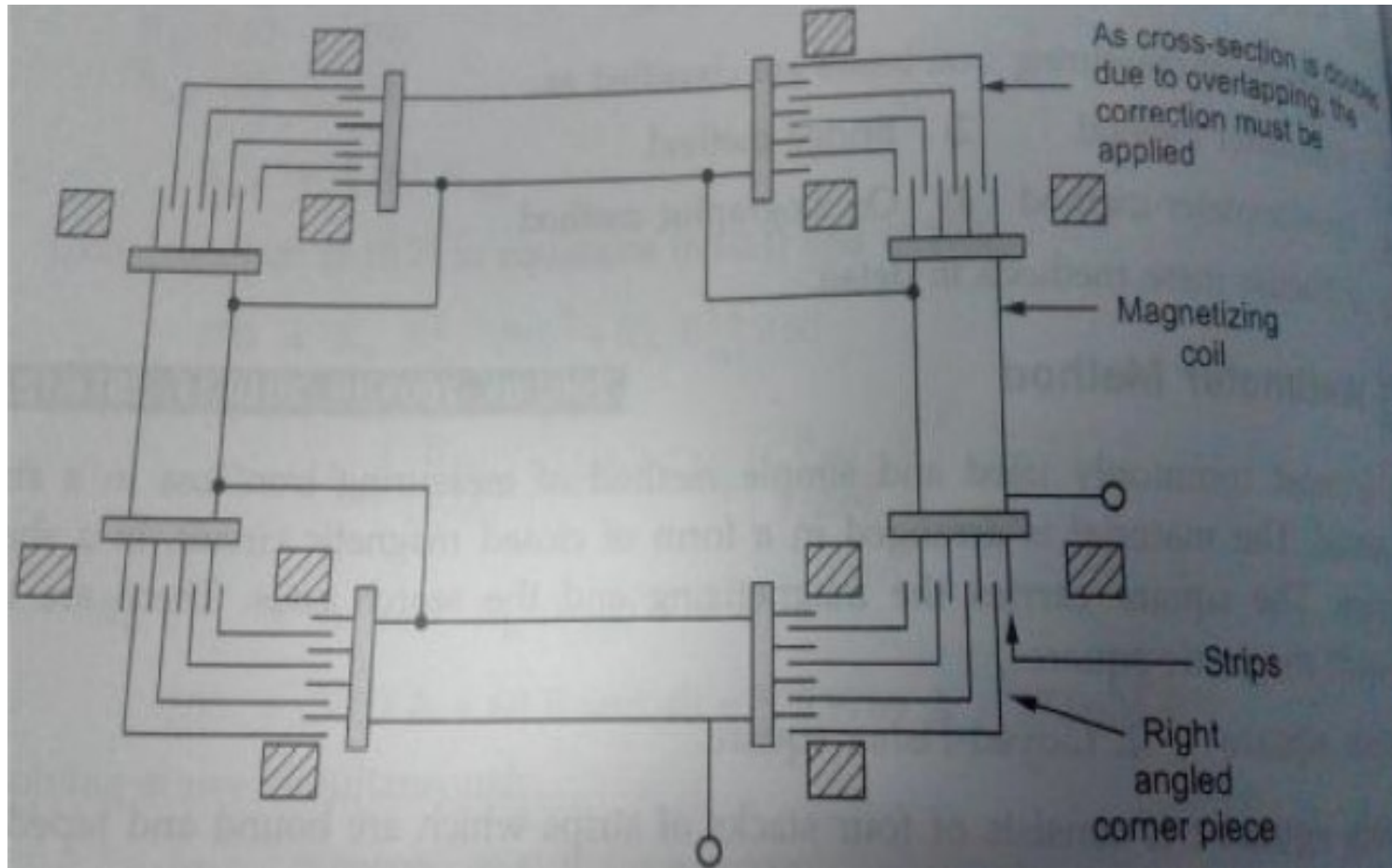
Wattmeter method

- The most commonly used and simple method of measuring iron loss in a strip steel material.
- The material is arranged in a form of closed magnetic circuit, in a shape of a square.
- There are two types of such squares:

Epstein square

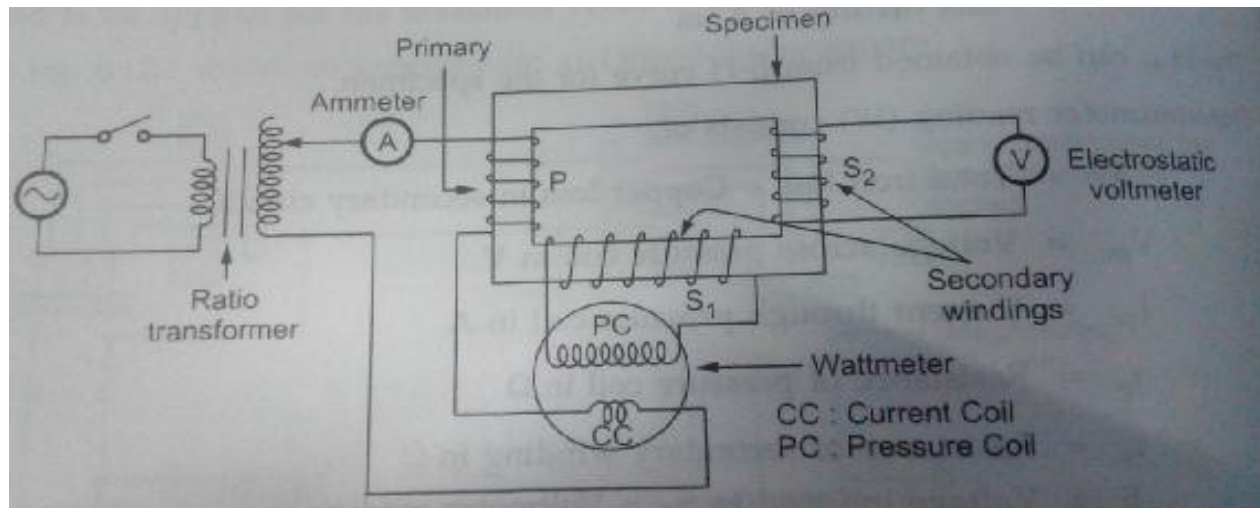


Lioyed – Fisher square



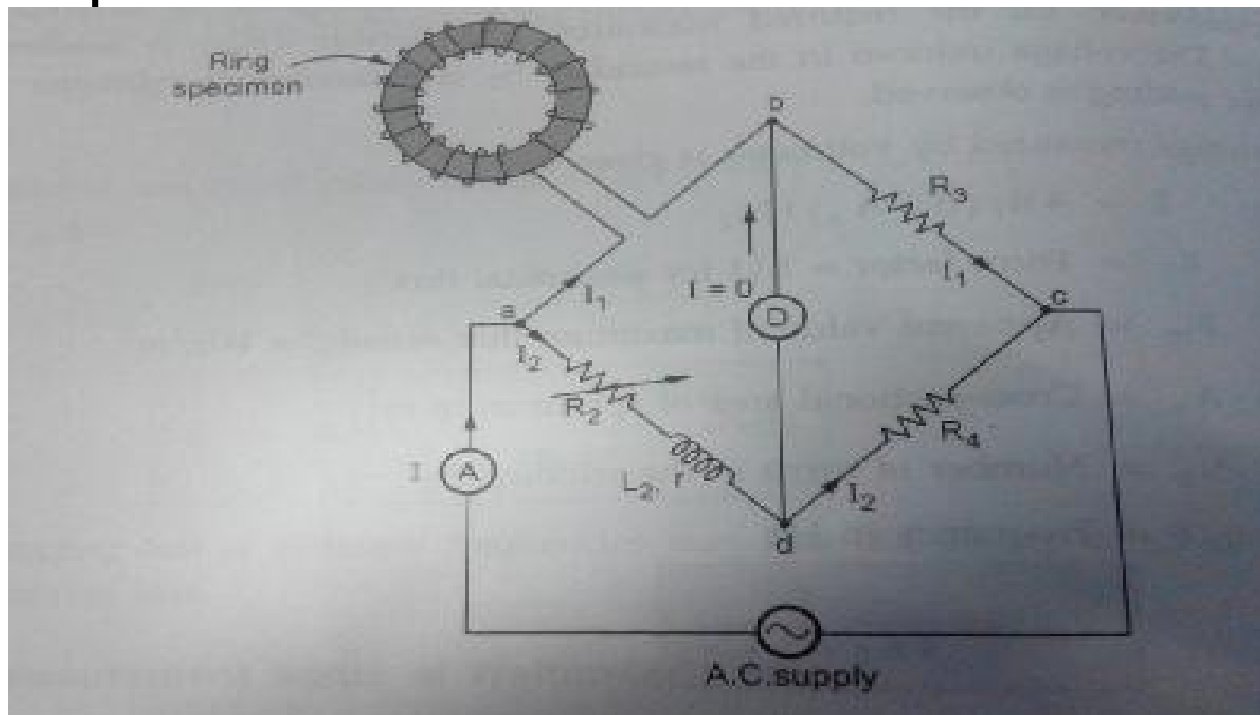
Measurement setup of wattmeter method

- Input voltage is adjusted using the tappings on the secondary of the ratio transformer, till the required maximum flux density (B_m) is reached in the specimen.
- The voltage induced in the secondary is measured on voltmeter while the wattmeter reading is observed.



Bridge Method

- Maxwell's Bridge Method
- The maxwell's bridge is used for testing ring specimen.



AC Potentiometer Method

- When supply is given to the primary, the voltage E_2 is induced in the secondary

