



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35**  
**An Autonomous Institution**

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai



## **DEPARTMENT OF CIVIL ENGINEERING**

### **23GET102-BASIC CIVIL AND MECHANICAL ENGINEERING**

**I YEAR ISEM**

#### **UNIT 2 – BUILDING COMPONENTS**

**Topic 7 : Lintel And Types**



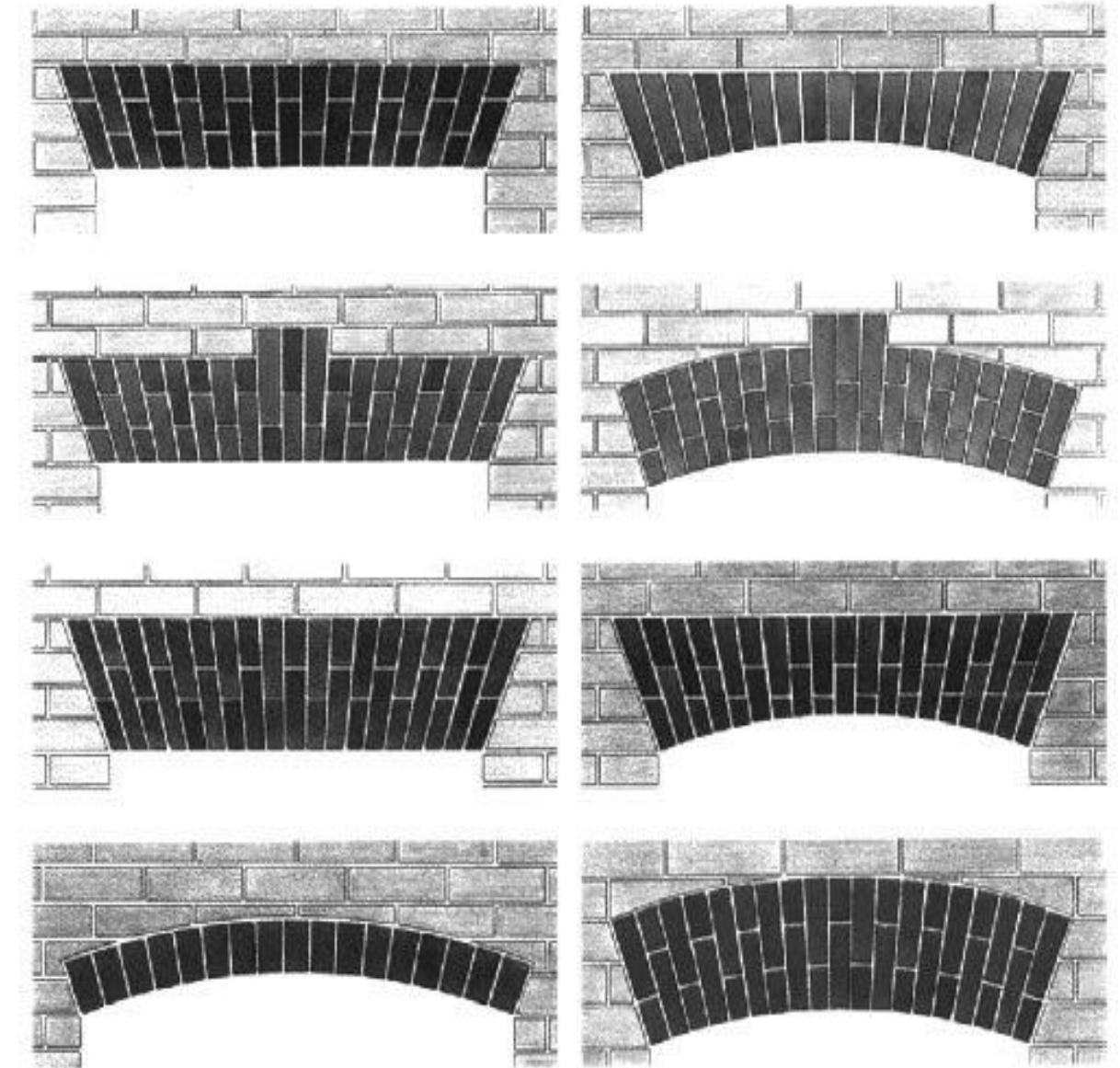




# What is Lintel?



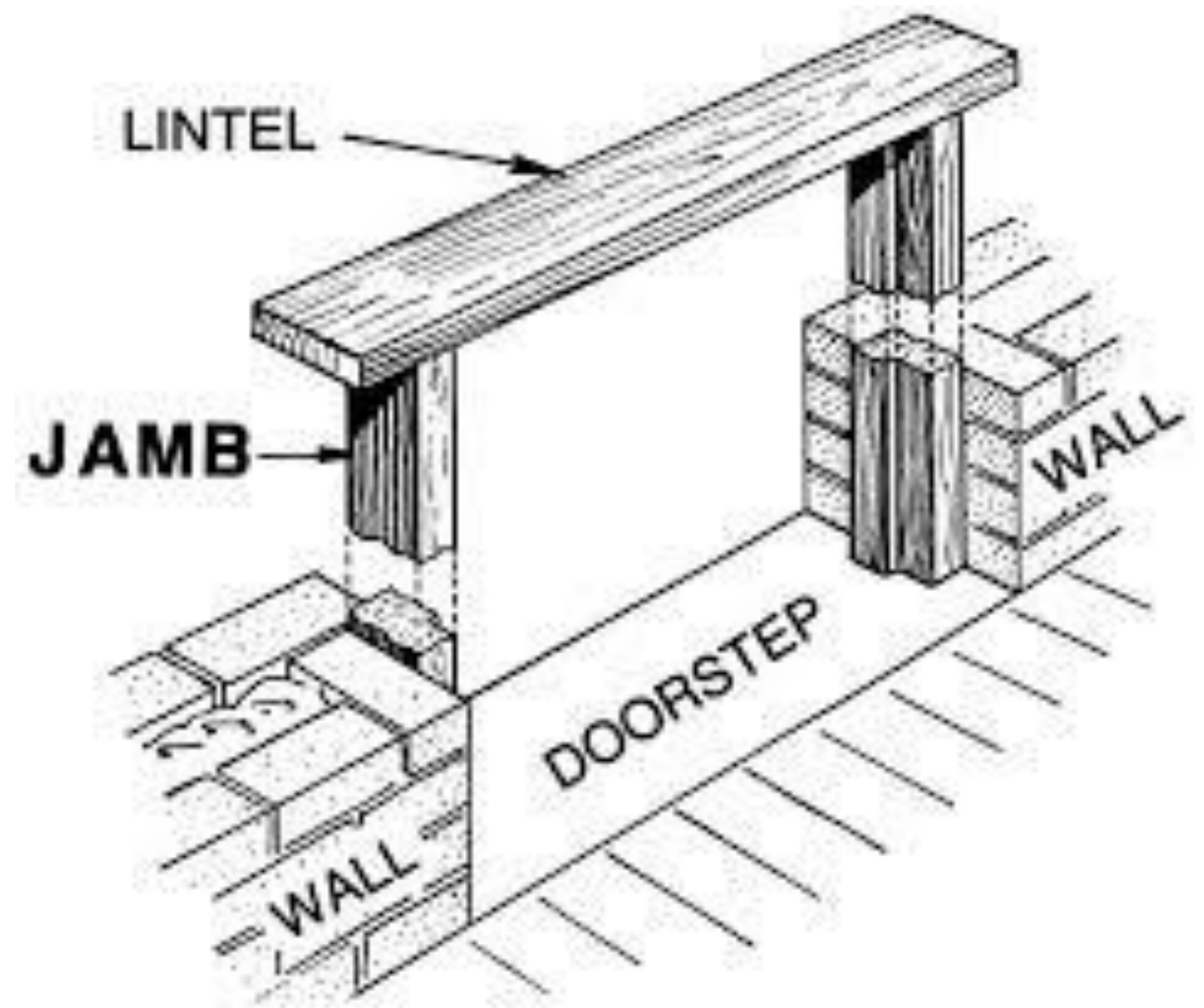
- ❖ A lintel is defined as a horizontal structural member which is placed across the opening.
- ❖ Hence, the structure remains in the position by the resistance from the support.





# Classification of lintel

- ❖ Timber lintels
- ❖ Stone lintels
- ❖ Brick lintels
- ❖ Reinforced Brick lintels
- ❖ Steel lintels
- ❖ Reinforced cement concrete lintels



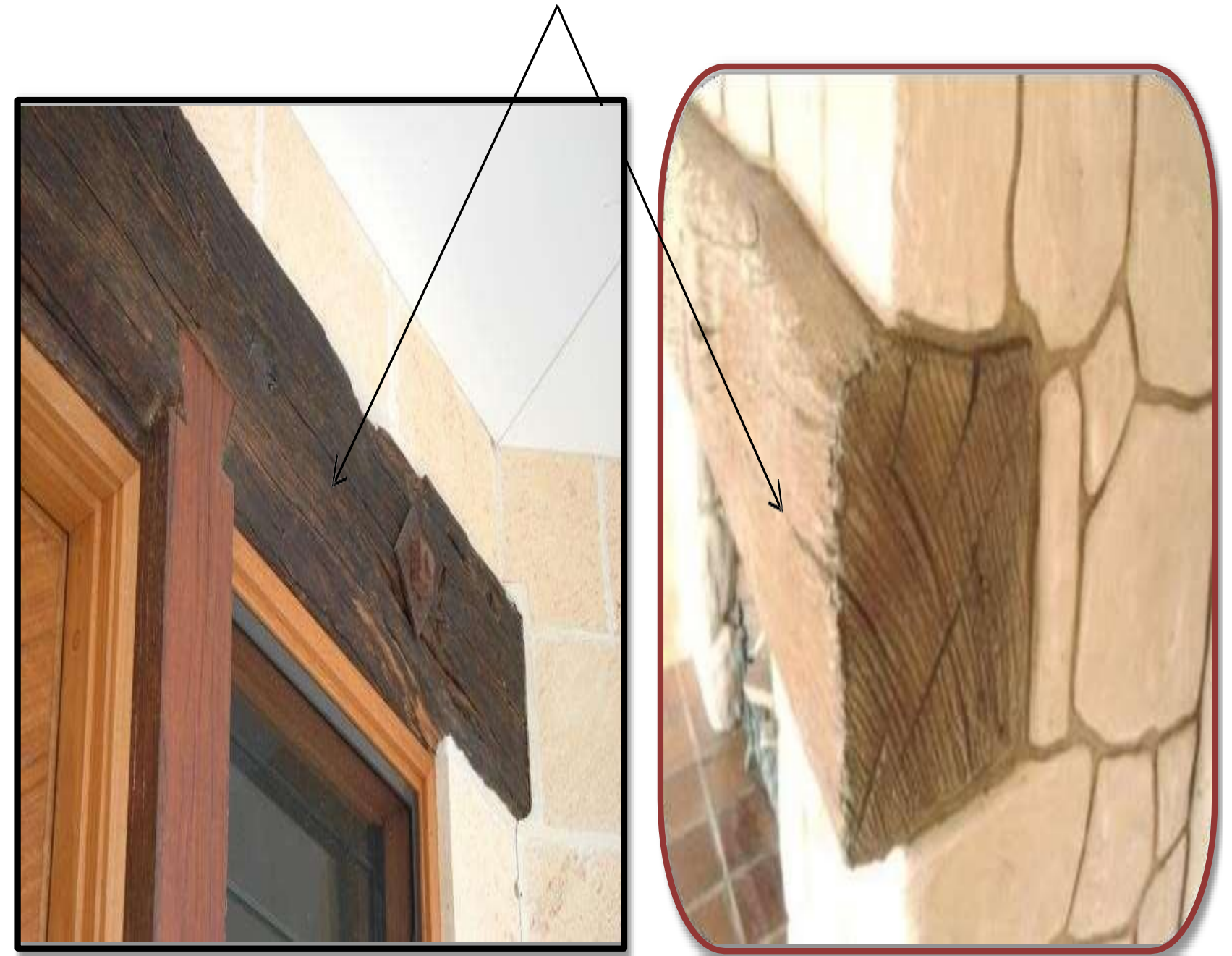




# Timber lintels



- ❖ Easily available in hilly area.
- ❖ Relatively costly, structurally weak and vulnerable to fire.
- ❖ Easily decay, if not properly taken care





## QUESTION TIME



**WHY TIMBER LINTEL NOT USED IN  
OUR CLASS ROOM....?  
WHERE DID YOU SEE....?**





## Stone lintels



- ❖ where stones are easily available
- ❖ Consists of a simple stone slab of greater thickness
- ❖ Due to high cost and its inability to withstand the transverse stress load it is not commonly used







# Brick lintels



- ❖ The brick are hard, well burnt, first class bricks
- ❖ Suitable for small span
- ❖ The bricks having frogs are more suitable.



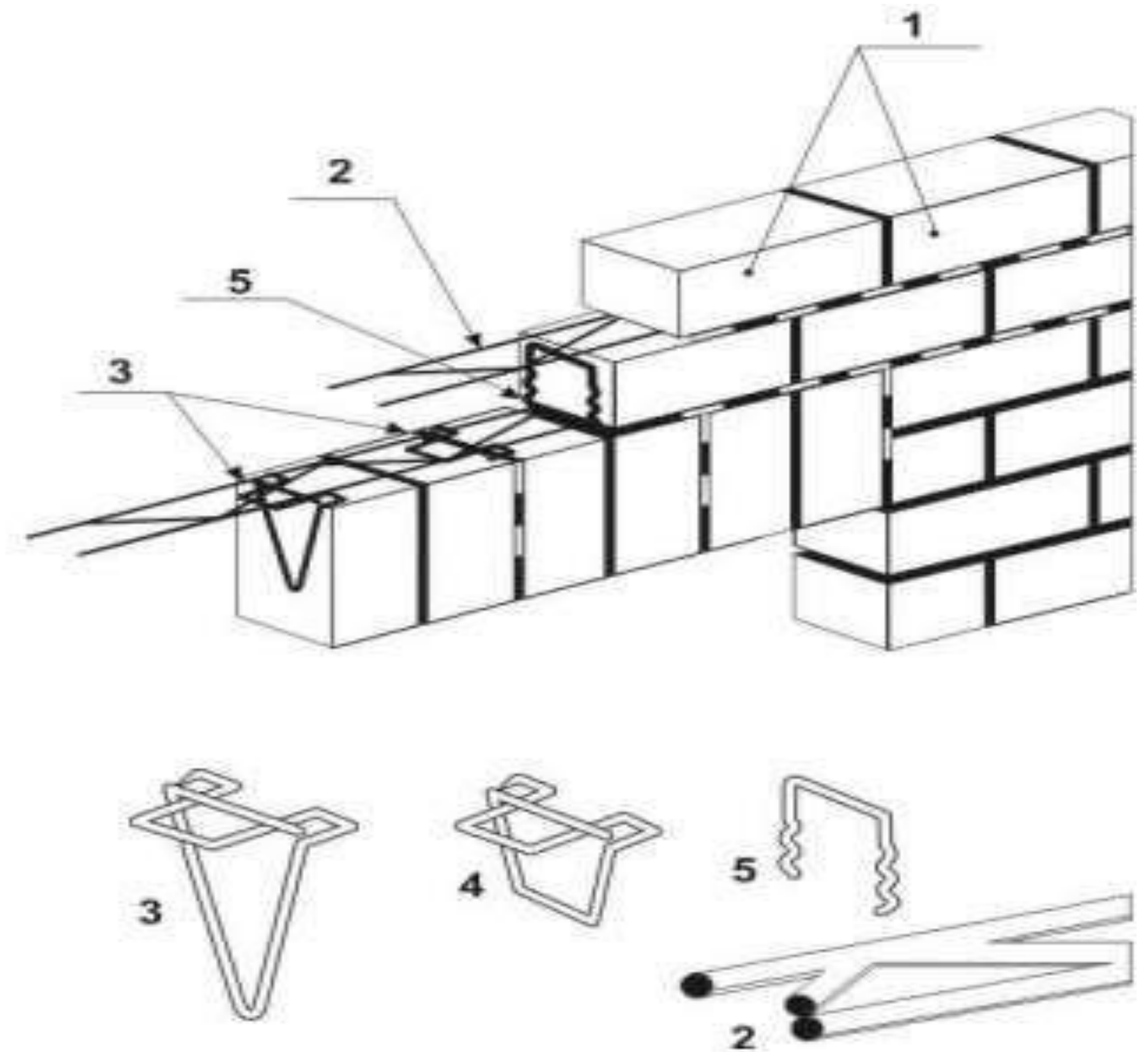




# Reinforced Brick lintels



- ❖ For large spans and heavy loads
- ❖ They are reinforced with mild steel bars.
- ❖ Very common due to durability, strength and fire resisting properties
- ❖ Joints are filled with cement concrete.

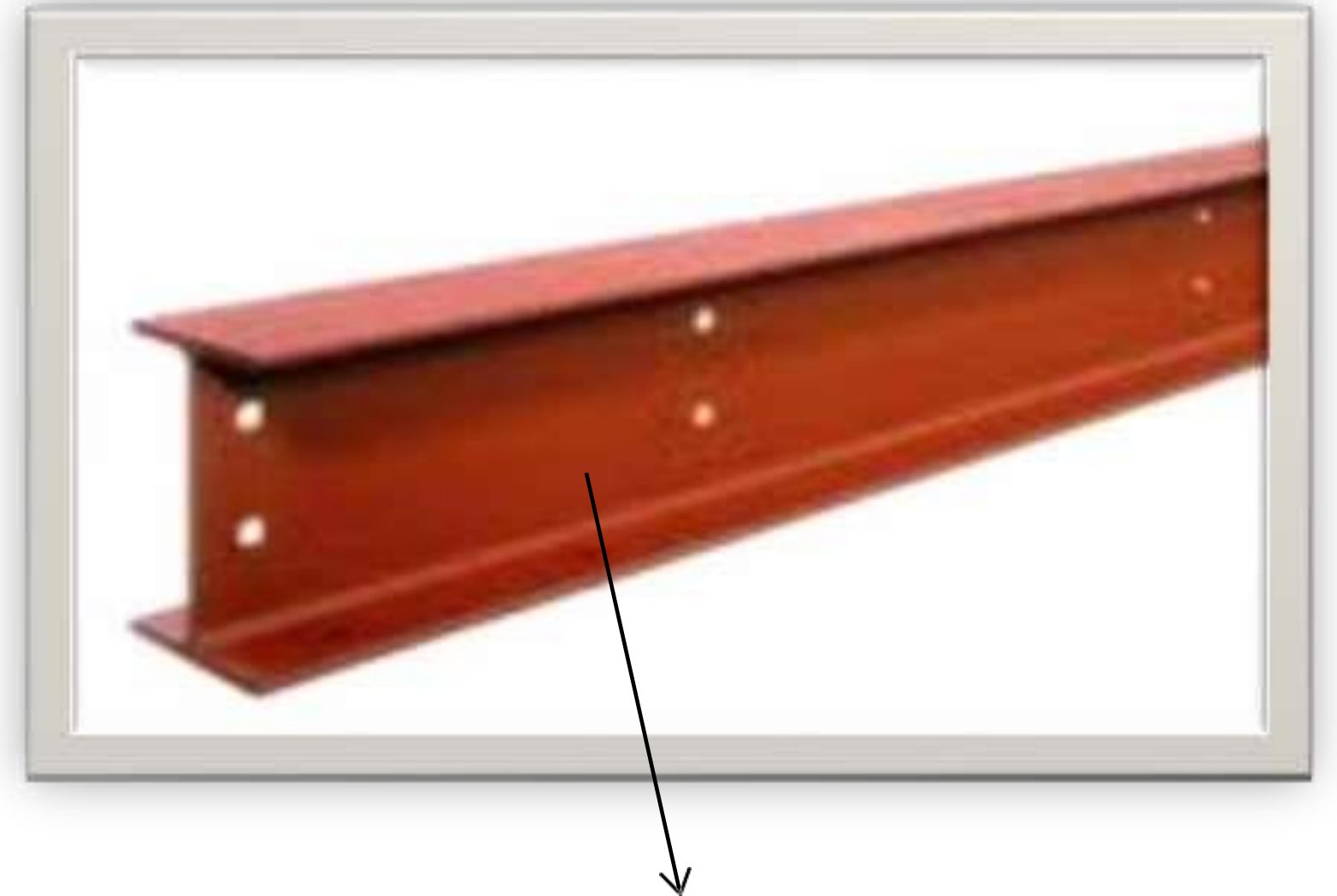




# Steel lintels



- ❖ Provided at large opening and where the super-imposed loads are heavy
- ❖ It consists of rolled steel joists
- ❖ Either used singly or in combination of two or three units
- ❖ Joint with bolts







# REINFORCED CEMENT CONCRETE LINTEL



- ❖ Common in used
- ❖ They may be pre-cast
- ❖ For smaller span, the pre-cast concrete lintels are used
- ❖ Depth of lintel depend on span





# QUESTION TIME ...

## Which way this bus is driving?



The bus is moving to the left because the door is on the other side.



