



SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

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DEPARTMENT OF CIVIL ENGINEERING

23GET102-BASIC CIVIL AND MECHANICAL ENGINEERING

I YEAR ISEM

UNIT 2 – BUILDING COMPONENTS

Topic 7 : Lintel And Types

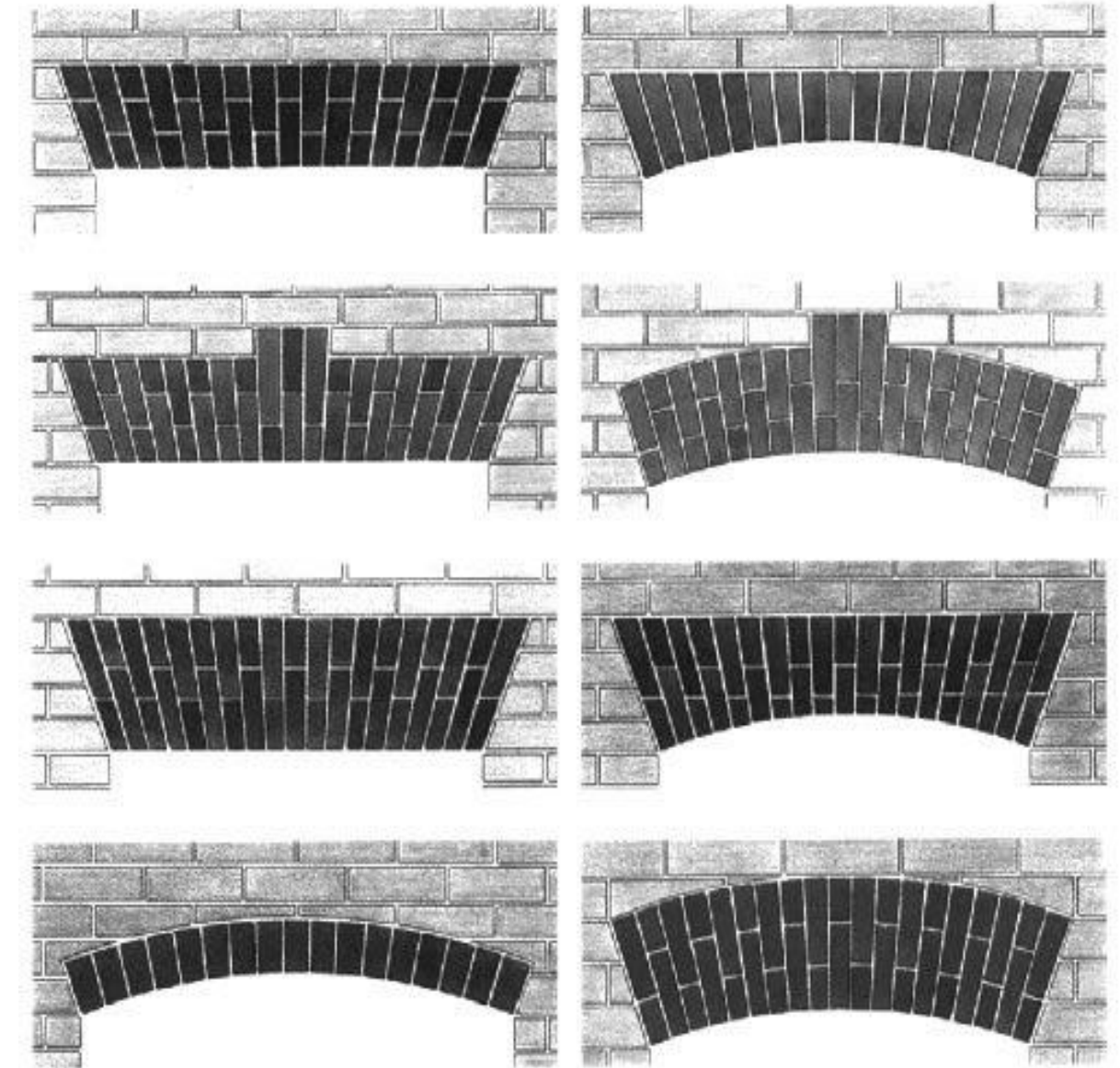




What is Lintel?



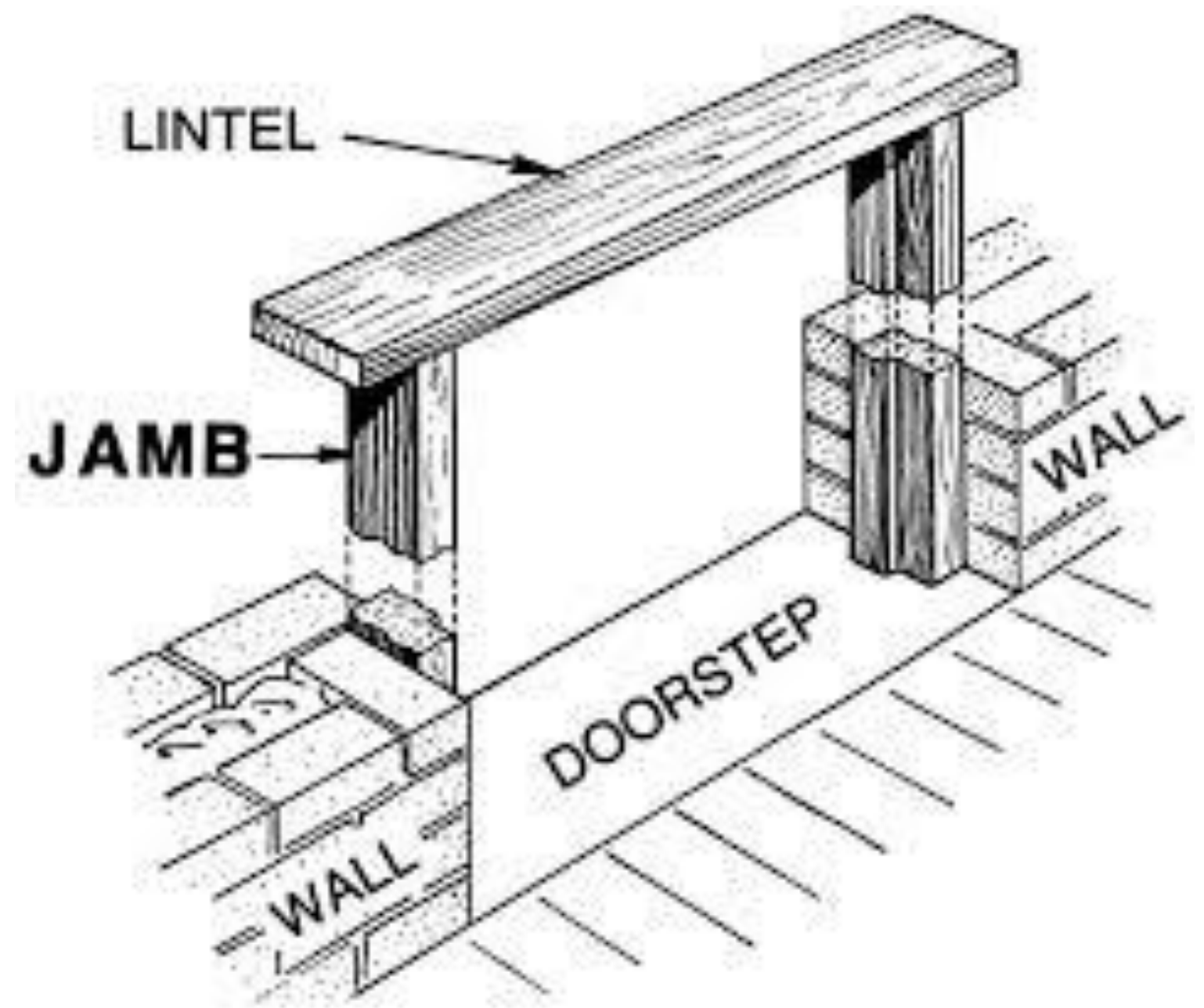
- ❖ A lintel is defined as a horizontal structural member which is placed across the opening.
- ❖ Hence, the structure remains in the position by the resistance from the support.





Classification of lintel

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

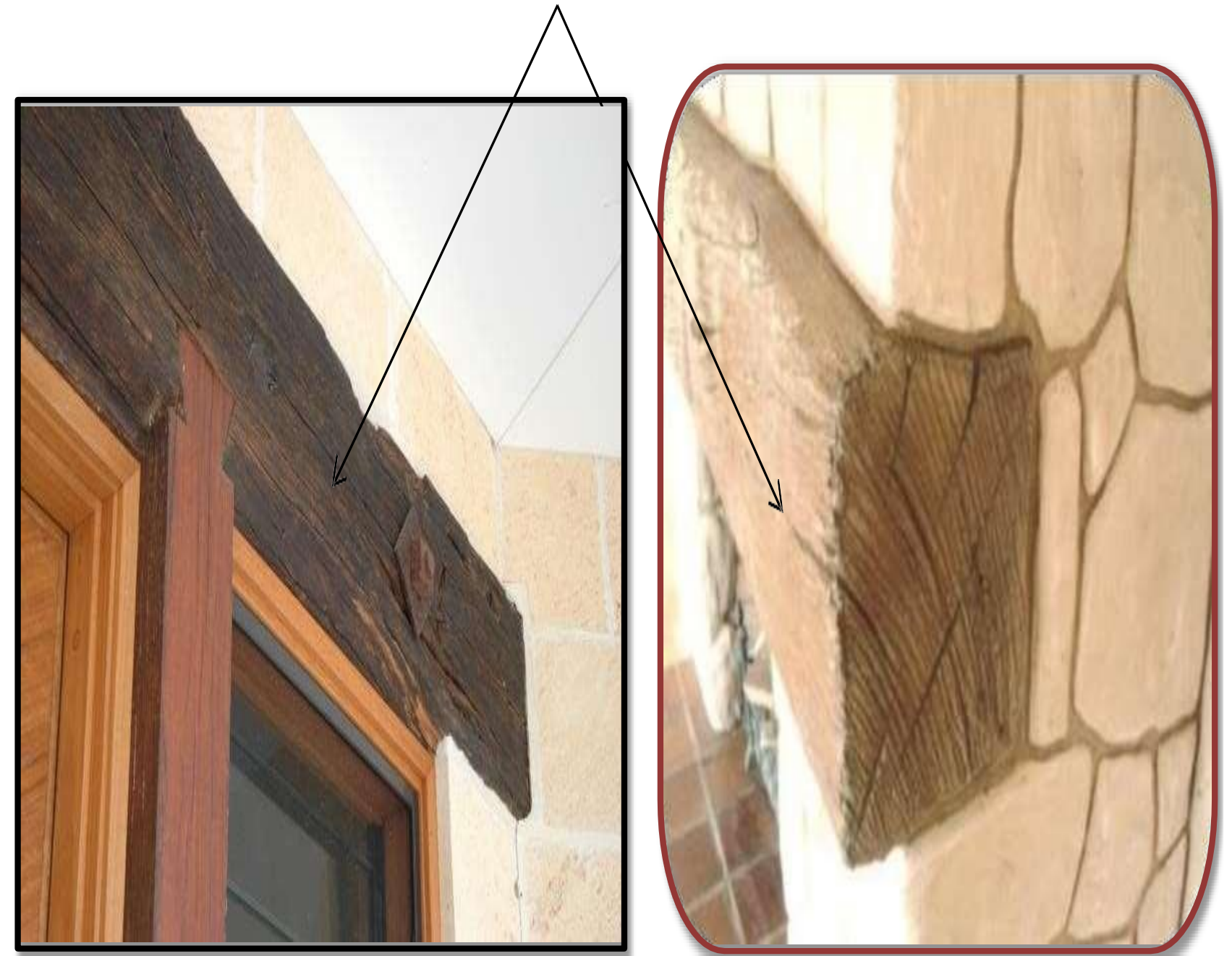




Timber lintels



- ❖ 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.

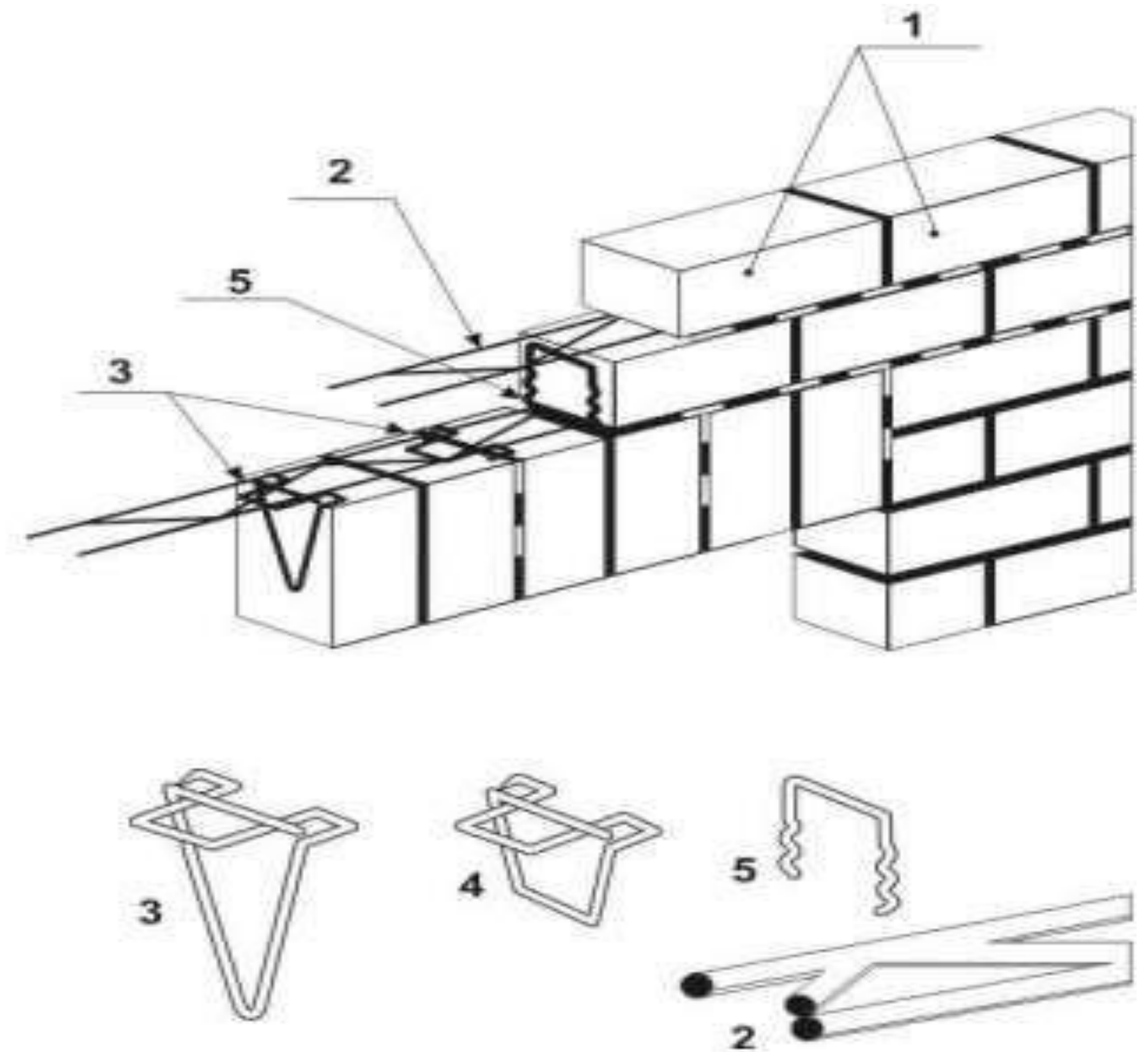




Reinforced Brick lintels



- ❖ 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.

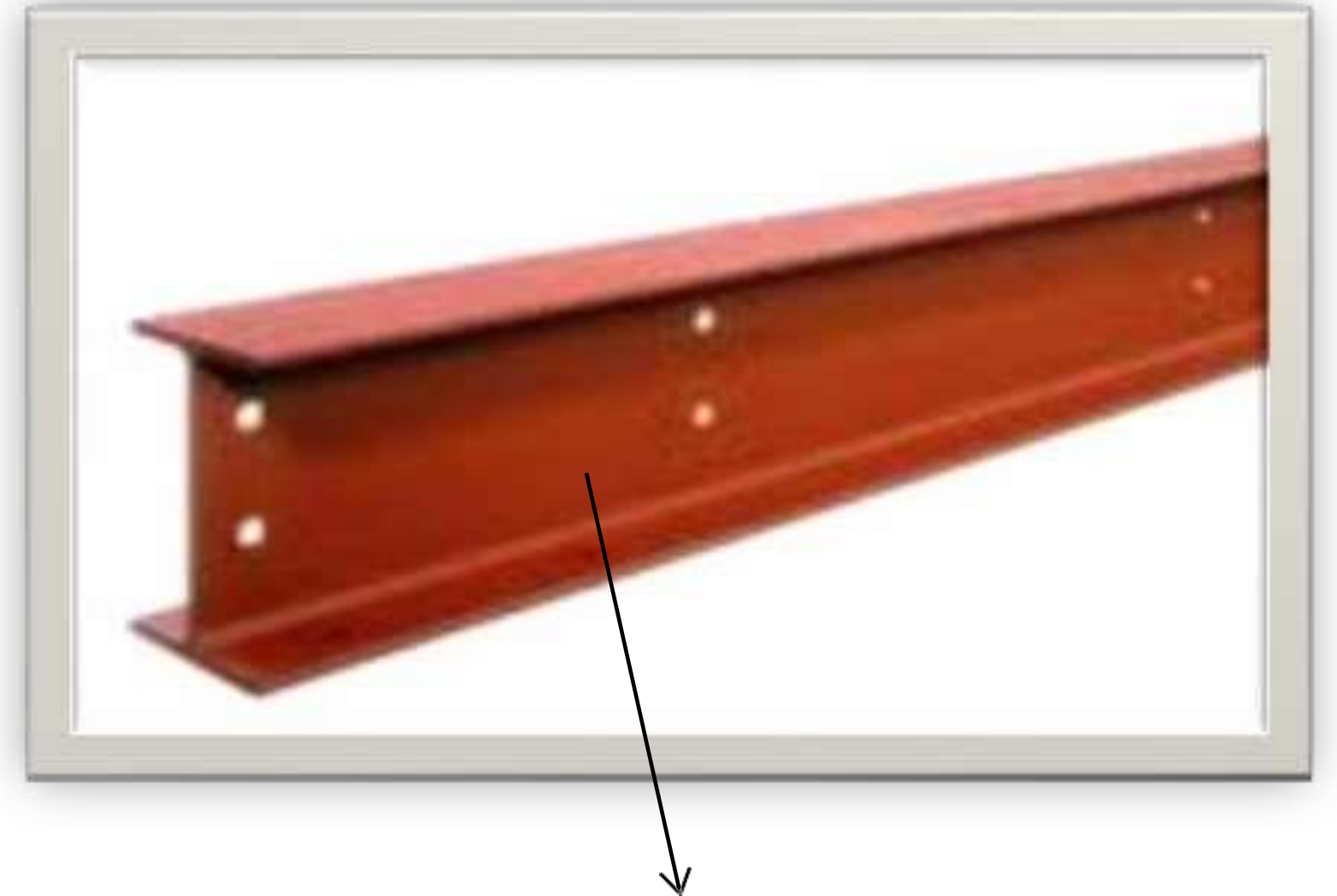




Steel lintels



- ❖ 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



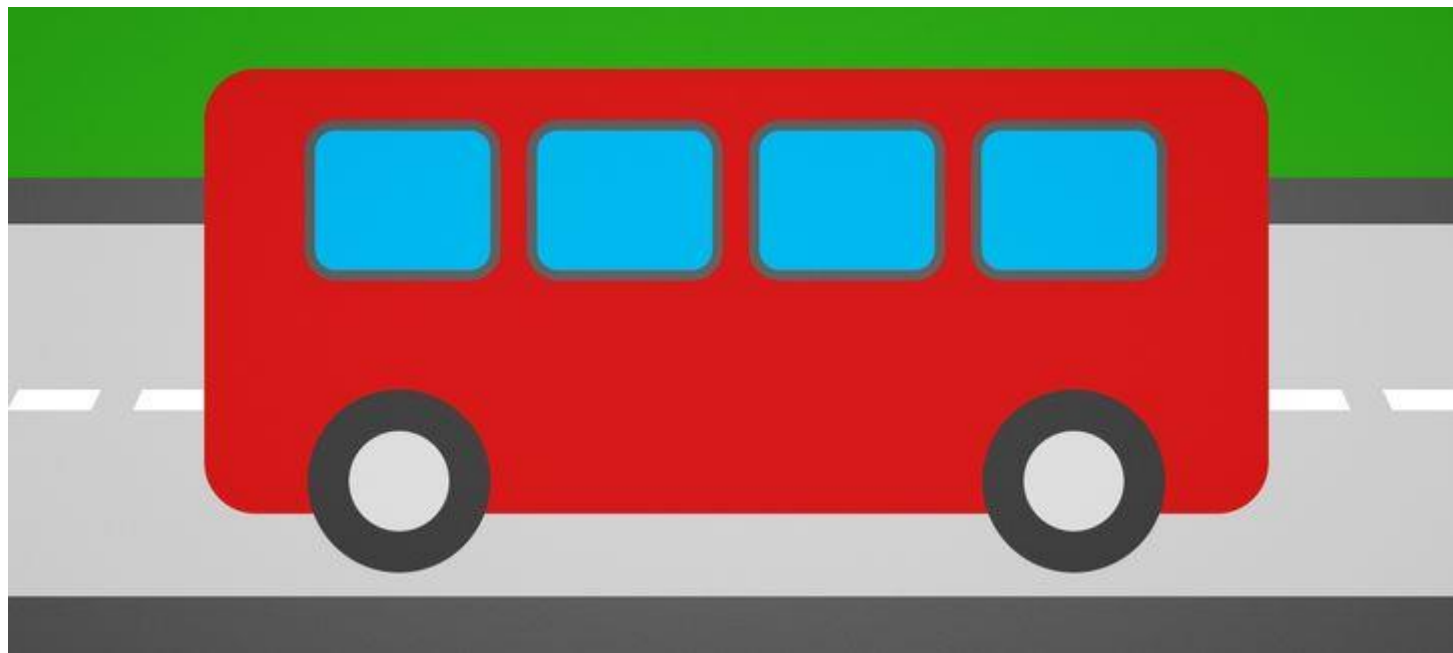
- ❖ Common in used
- ❖ They may be pre-cast
- ❖ For smaller span, the pre-cast concrete lintels are used
- ❖ Depth of lintel depend on span





QUESTION TIME ...

Which way this bus is driving?



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

