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Title of Invention: - Interlocking brick

Patent Application No.: - 3434/MUM/2013

Abstract: The interlocking brick is developed with aim to exclude use of cement mortar in construction of wall. The bonding between bricks is executed by the interlocking pattern of the brick. Brick has a specific interlocking pattern which helps it to interlock with the other bricks to form a wall. This brick has projection on the top surface and depression on the bottom. This projection of one brick fits into depression of the other, so that they align and bond perfectly. This interlocking pattern wall will take vertical load as well as horizontal thrust effectively. The placing of this brick is very easy and requires no plumb, line and level, to be checked. Any unskilled worker or household people can build the wall. The use of Rat-Trap bond has added to advantage of interlocking brick wall.

Bricks are used in wide variety of civil engineering and landscaping applications such as building walls, exterior boundary walls, and retaining walls. Structures made of bricks require relatively less amount of mortar for binding bricks together, thereby reducing the cost of the structure. Generally, structures are constructed using a masonry technique known as rat-trap bond. Rat-trap bond provides for cavity in the structure, thereby reducing the amount of bricks required for the construction of the structure. The rat-trap bond includes cavities formed in the structure to minimize the requirement of virgin materials such as clay and cement needed for the construction of structures.

During construction of structures using rat-trap bond, mortar is used between adjacent bricks so as to bind them together. Structures made by rat-trap bond requires due care while determining the lengths and heights for a structure. Complex calculations are required to be made to determine the cavities and structural dimensions taking into consideration each module, which are required to be constructed by the use of bricks.

Constructing structures using conventional bricks require specialized training and skills to assemble the bricks.

Hence, there is felt a need for eliminating the problems associated with the conventional bricks.

Further, there is a need to provide a brick that

- provides fast construction and placing;
- eliminates requirement of the skilled persons for constructing a structure;
- removes use of mortar or any other filling material between two consecutive bricks;
- provides thermal insulation to a space; and
- eliminates use of plasters for a structure