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2,669,117

MORTARBOARD

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Fig. 2.

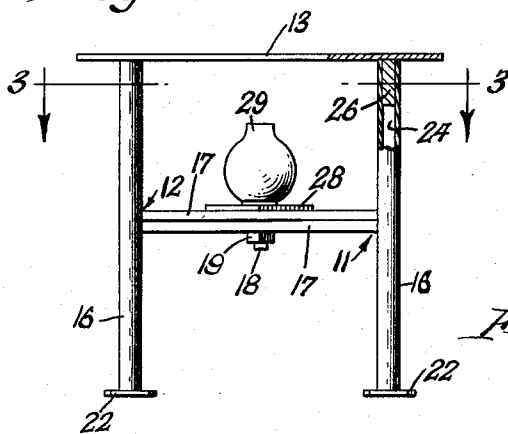


Fig. 1

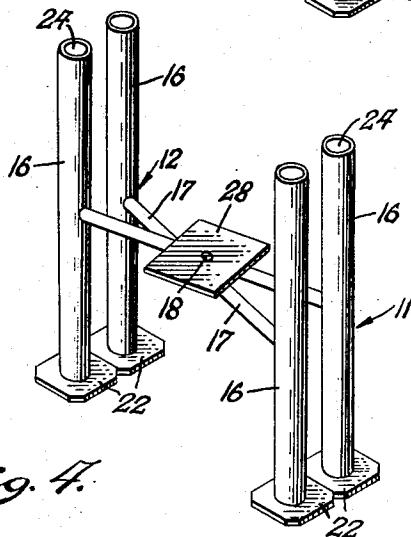
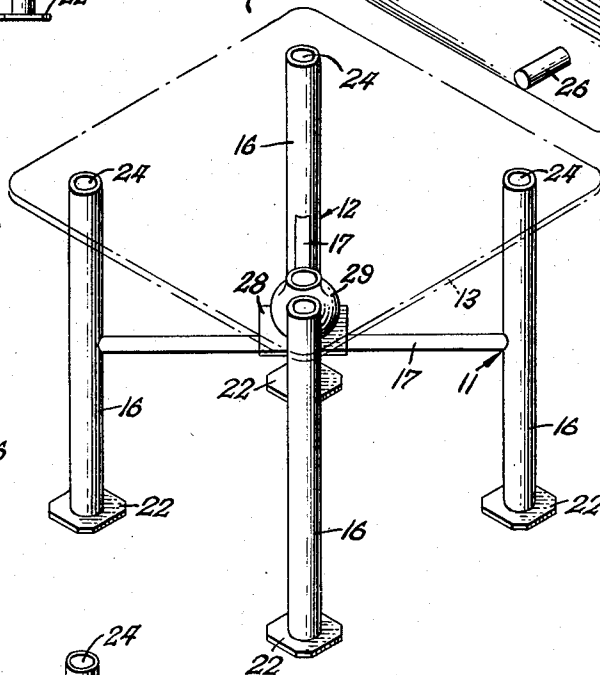
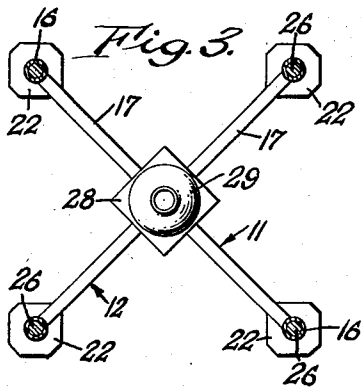
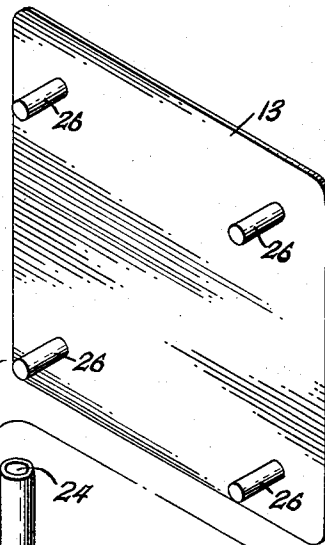


Fig. 4.

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MORTARBOARD

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2 Claims. (Cl. 72-135)

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This invention relates to mortar boards and particularly to a collapsible metal, self-supported, table-like mortar board.

It is an object of the invention to provide a mortar board which is non-absorbent and therefore does not draw moisture from mortar placed thereon.

Another object of the invention is to provide a mortar board of the character described which is collapsible to facilitate its transportation and storage.

A further object of the invention is to provide a mortar board of the character described which is provided with means for supporting a heating device to delay or retard cooling of the mortar in cold weather.

Still another object of the invention is to provide a mortar board of the character described which is of inexpensive but strong and durable construction and which is easily erected and dismantled.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the drawings in which:

Fig. 1 is a perspective view of the mortar board of the present invention with the top plate thereof removed and turned on edge to show the retaining pins on the bottom thereof;

Fig. 2 is a side elevational view of the mortar board of the present invention with a portion of one of the supporting legs broken away to show the connection of the leg with the top plate;

Fig. 3 is a transverse, sectional view taken on the line 3-3 of Fig. 2; and

Fig. 4 is a perspective view of the supports for the mortar board in folded position.

The mortar board of the present invention comprises a table having a pair of attached supports 11 and 12 and a removable top plate 13. Each of the supports 11 and 12 is formed of a pair of parallel legs 16 which are joined by a cross-bar 17 which preferably is rigidly attached at each of its ends to one of the legs. The supports 11 and 12 are pivotally connected in crossed or intersecting relation as shown in Figs. 3 and 4, by suitable means such as a bolt 18 and a nut 19, the bolt passing through holes provided in the cross-bars 17 at their point of intersection and being held in place by the nut 19.

Preferably, each leg 16 is provided at its lower end with a base or foot 22. While the legs may be of any desired construction, it is preferred to form them of lengths of tubular metal such as pipe and when so formed the feet 22 may also be

conveniently formed of metal and may readily be attached to the bottom ends of the legs 16 by welding. When the legs 16 are formed of metal the cross-bars 17 are preferably also formed of metal rods or pipes of smaller diameter than the legs and are secured to the legs by welding. Regardless of how the legs are constructed or of what material, a hollow space 24 is provided in each of the legs at the upper end thereof.

The removable top plate 13 of the mortar board of the present invention preferably projects beyond the supports 11 and 12 and is preferably formed of metal. It may be conveniently cut from a sheet of metal such as steel, aluminum or the like. A plurality of spaced metal pins 26 are secured to the bottom of the plate 13 by suitable and convenient means such as welding. The pins 26 are so spaced as to enter the hollow spaces 24 in the legs 16 when the supports 11 and 12 are pivoted to place the cross-bars 17 at right angles, as shown in Fig. 3. Where, as shown in the drawings, the top plate is rectangular, the pins 26 are advantageously placed adjacent the corners of the plate. By the interlocking of the pins with the legs 16 the top plate 13 is prevented from falling or sliding from the supports 11 and 12 and the supports are maintained in open position to provide a stable base for the plate 13.

In cold weather mortar exposed on a mortar board quickly becomes cool or chilled and is hard to apply. Such chilling may be retarded or reduced by providing heating means for the mortar. As will be seen in the drawing, a small plate or shelf 28 is attached to the cross-bar 17 of the support 11. There may be placed on the shelf 28 under the top plate 13 a suitable heating device such as a lamp or heater 29 from which heat is directed upwardly to the plate. Since the latter is of metal, the heat is readily conducted to the upper surface thereof and cooling or chilling of the mortar thereon is retarded.

It will be seen from the foregoing description that the construction of the table forming the mortar board of the present invention is simple but that a durable, strong and rigid structure is obtained. Since the base for the board formed by the supports 11 and 12 is firm and the pins 26 carried by the top plate 13 lock the supports in open or extended position, mortar boards constructed in accordance with the present invention are suitable for use as supports for planks in forming a scaffold or for other purposes.

The use of a metal sheet as the top plate of the mortar board is advantageous since such a plate is non-absorbent. Hence the consistency of the

mortar is not affected by absorption of water therefrom as is common with the standard wooden mortar boards. The plate 13 is also smooth and non-splintering and hence no splinters or chips become mixed with the mortar. Furthermore, the plate has good heat-conducting properties and thus allows the cooling of mortar in cold weather to be materially retarded by the provision of a source of heat under the plate.

The construction of the supports 11 and 12 for the table 13 and the connection between the plate 13 and the supports are such that in set up or erected position the table is rigid and firm while when the top plate 13 is removed from the supports the supports may be folded together, as shown in Fig. 4, to occupy materially less room than when extended (as shown in Fig. 3). This is an advantage in that storage space or space required during transportation may be conserved. In setting up the table it is merely necessary to open the supports 11 and 12 to the position shown in Figs. 1 and 3 and then to place each of the downwardly projecting pins 26 on the plate 13 in the hollow space 24 at the upper end of one of the legs 16.

It will be understood that various modifications and changes in the construction described and shown in the accompanying drawings may be made without departing from the spirit of the invention. Thus, the table may be oblong rather than square, or, if desired, the top plate 13 may be formed in circular or other non-rectangular shape. The feet 22 on the legs 16 may be of a different shape than that illustrated and may, if desired, be detachable. Moreover, if desired the metal parts of the device may be formed of suitable corrosion-resisting metal or may be given a corrosion-resisting coating to enable them to withstand without deterioration contact with mortar. It is not intended, therefore, that the invention should be limited except by the terms of the appended claims.

I claim:

1. An all metal collapsible mortar board, comprising four tubular parallel metal legs open at their upper ends, a metal top plate removably resting on the upper ends of said legs, four metal pins fast to and projecting downwardly from said metal top plate and each removably fitted in the open upper end of a corresponding one of said legs, a first horizontal metal cross bar fixed at its opposite ends to one diagonally opposite pair

of said legs substantially midway of the height of said pair of legs, a second horizontal metal cross bar fixed at its opposite ends to the other diagonally opposite pair of said legs immediately above said first metal cross bar, a fastener having a shank extending through registering vertical holes in said metal cross bars and permitting said legs and metal cross bars to be swung to a nested condition around the axis of said shank following removal of said top plate, said pairs of legs being wholly disconnected from each other above said second cross bar except for said pins and said top plate, and a small horizontal metal plate mounted on the center of said second metal cross bar substantially at the center thereof and adapted to support a heater for heating said top plate in cold weather.

2. An all metal collapsible mortar board, comprising four round tubular parallel metal legs open at their upper ends, a metal top plate removably resting on the upper ends of said legs, four metal pins fast to and projecting downwardly from said metal top plate and each fitted in the open upper end of a corresponding one of said legs, a first horizontal tubular metal cross bar fixed at its opposite ends to one diagonally opposite pair of said legs substantially midway of the height of said pair of legs, a second horizontal tubular metal cross bar fixed at its opposite ends to the other diagonally opposite pair of said legs immediately above said first metal cross bar, said pairs of legs being wholly disconnected from each other above said second cross bar except for said pins and top plate, a small horizontal metal plate mounted on the center of said second metal cross bar substantially at the center thereof and adapted to support a heater for heating said top plate in cold weather, and a fastener having a shank extending through registering vertical holes through the centers of said metal cross bars and small plate and permitting said legs to be swung to a nested condition following removal of said top plate.

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