

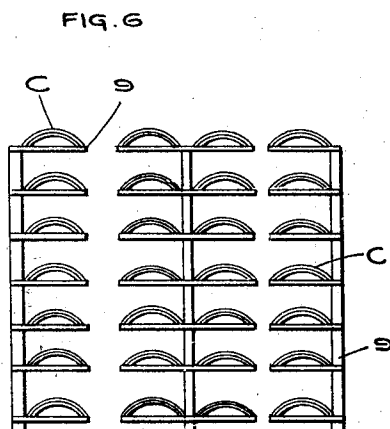
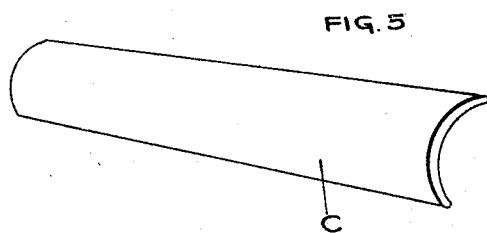
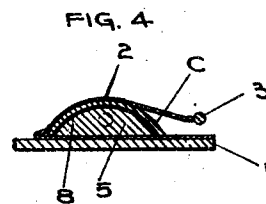
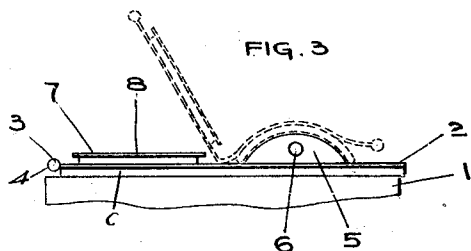
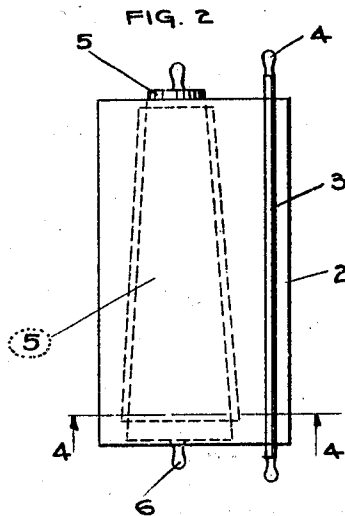
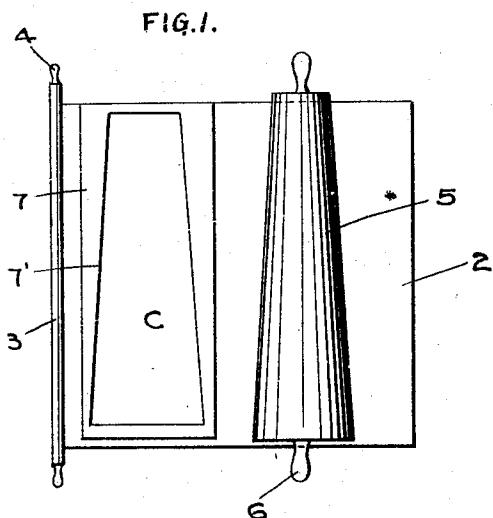
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1,695,119

METHOD OF MAKING TILE CLAY PRODUCTS AND APPARATUS THEREFOR

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METHOD OF MAKING TILE CLAY PRODUCTS AND APPARATUS THEREFOR.

Application filed October 24, 1927. Serial No. 228,264.

My invention relates to the manufacture of so called mission roof tiles, which are burnt clay roofing tiles having the appearance of the ancient hand-made roof tiles, such as made by the early missionaries of California.

It is an object of this invention to provide an apparatus and a method for making roof tiles whereby superior tiles may be made with a minimum of effort, thus reducing the cost of manufacture, and in which manipulation both the upper and lower sides of the tile are brought in view of the operator, thus enabling him to note and smooth out any voids in the clay, or other defects.

It is another object of this invention to provide a flexible sheet, having at one side thereof a reinforcing or stiffening member which serves as a handle on which sheet a layer of clay, intended for the tile, is placed and smoothed out, and then by raising one side of the flexible sheet by the handle to turn or flap over the layer of clay upon a tile mold disposed by the side of it upon which the molding operation is finished. The tile is then dried and subsequently burned in the usual manner.

With the above and other objects in view, which will appear as the description proceeds, my invention consists of the construction and arrangement of parts of the tile making apparatus and the method of making the tile hereinafter described and claimed.

In the accompanying drawings I have shown an apparatus for making clay tiles and in which:

Figure 1 is a top plan view of the same.

Fig. 2 is a top plan view after the flexible sheet and the slab of plastic clay have been turned onto the mold by a turning movement of the flexible sheet.

Fig. 3 is a front elevation of the apparatus, showing in dotted lines the successive position of the slab of clay as the flexible sheet is turned onto the mold.

Fig. 4 is a cross section taken on the line 4-4 of Fig. 2.

Fig. 5 is a perspective view of a finished tile.

Fig. 6 is a fragmental view showing a stack of trays with the clay tiles thereon for drying.

Referring to the drawings, 1 indicates a

portion of a suitable support, such as a bench or table, upon which is disposed a sheet of flexible material 2 which is preferably made of canvas or similar material. At one side thereof a rod 3 is secured to the edge of the flexible sheet 2, which rod may project at either end at 4 beyond the sheet 2 and which rod constitutes a handle for operating the sheet. 5 is a mold, either of wood or metal, upon which the clay tile is finished, said mold being provided with handles 6 at either end for easier manipulation. 7 is a frame having a recess 7' in the shape of a trapezoid of the dimensions corresponding to the dimensions required for the tile to be made. The mold 5 and the frame 7 are placed conveniently side by side upon the flexible sheet 2, as clearly shown in Fig. 1.

The operation of making a clay tile is as follows.

Plastic clay is placed into the recess 7' of the frame 7, to completely fill the same, and is manipulated so as to form a homogeneous slab of clay C. The excess of clay is then scraped off by a scraper, not shown. The frame 7 is then removed leaving the slab of clay C corresponding in shape to the trapezoid 7' upon the flexible sheet 2. A sheet of paper 8 is now placed either on the mold 5 or on top of the slab of clay C and the operator grasps the rod or handle 3 and lifts the same upwardly so as to cause the slab of clay C to be moved or fall upon the mold 5. These successive steps are clearly shown in Fig. 3, while Fig. 4 shows the position of the flexible sheet 2 and the slab of clay C at the end of the turning movement. It should be noted that the slab of clay C is turned upside down in this movement and lies on the mold 5 with its bottom side up. The flexible sheet is then moved back into its normal position. It should be noted that in the position shown in Fig. 4, a sheet of paper 8 is interposed between the mold and the slab of clay, preventing the clay from sticking to the mold. The paper 8 may be placed either on the slab of clay C direct, as shown, or on the mold 5. The paper 8 could be omitted if other means are provided for preventing the clay from adhering to the mold 5.

The clay on the mold 5 is now manipulated by the hands in order to give it the desired hand-made or rustic effect, leaving fin-

ger marks on the outer surface of the clay. The mold 5 with the plastic clay tile thereon is now removed to a drying tray 9, shown in Fig. 6, and conveniently slid off the mold 5 by withdrawing the latter, the tile C being supported by the side edges thereof, and after the proper degree of drying the tiles are burned in the usual or any preferred manner.

10 It will thus be appreciated that while the tile may be said to be hand-made, which is desired, the manipulation is reduced to a minimum, enabling a workman to turn out a large number of clay tiles during the day, thus reducing the cost of manufacture. Both the upper and lower sides of the slab of clay are exposed to his inspection, one side in the frame 7 and the other on mold 5, thus enabling him to smooth out any voids on either side, which results in a superior tile. The workman works the slab of clay first on the surface on the flexible sheet 2 and then the opposite side when the slab of clay has been deposited on the mold 5. In this manner both sides of the slab of clay are properly worked and the result is a superior tile of uniform construction. In the prior art the practice was to work the top side only.

Various changes may be made by those skilled in the art in the construction and arrangement of parts of the apparatus, or in the steps of the method, without departing from the spirit of my invention as described and claimed.

35 I claim:

1. An apparatus for making roof tiles, comprising a support, a flexible sheet on said support, a removable frame on said sheet adapted to receive and shape a slab of plastic clay, and a tile mold adjacent said slab of clay, said sheet being held down on said support along a line intermediate said slab of clay and said tile mold, whereby on the

turning movement of said sheet, said slab of clay is turned upside down to rest on said mold. 45

2. An apparatus for making roof tiles comprising a flexible sheet having a rod at one side thereof, a removable frame adapted to rest on said sheet and to receive and shape a slab of plastic clay, and a tile mold adapted to receive the slab of clay by a turning movement of said sheet whereby said slab of clay is turned upside down to rest on said mold. 55

3. A method of making roof tiles comprising molding a slab of plastic clay on a flexible sheet supported by a surface, raising one side of said sheet to give the slab of clay a turning movement causing it to be deposited upside down on a tile mold, molding the upper surface of the slab of clay by hand, and drying and burning the tile. 60

4. A method of making roof tile comprising molding a slab of plastic clay on a flexible sheet supported by a surface, raising one side of said sheet to give the slab of clay a turning movement causing it to be deposited upside down on a tile mold, with a sheet of paper between said mold and said slab of clay, molding the upper surface of the slab of clay by hand, and drying and burning the tile. 70

5. A method of making a roof tile comprising molding a slab of plastic clay on a flexible sheet supported by a surface, working the upper face of said slab of clay by hand, raising one side of said sheet to give the slab of clay a turning movement causing it to be deposited upside down on a tile mold, molding the upper face now presented by the slab of clay on said mold by hand, and drying and burning the tile. 75

In testimony whereof I have signed my name to this specification.

HERBERT A. SHUGART.