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2,667,664

METHOD OF FACING CONCRETE BLOCKS WITH TILE

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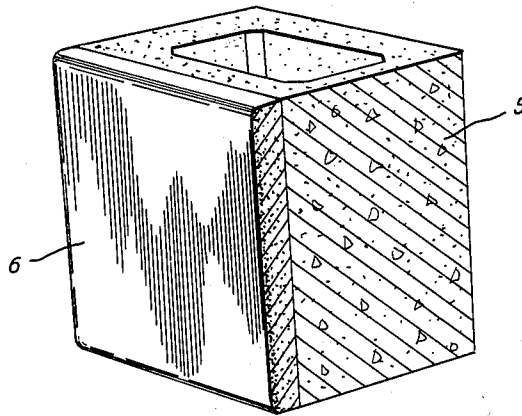


Fig. 1.

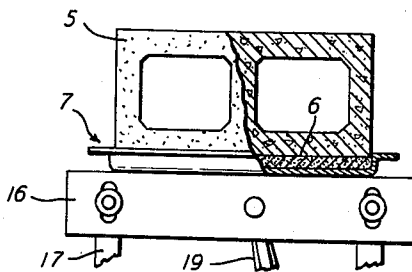


Fig. 3.

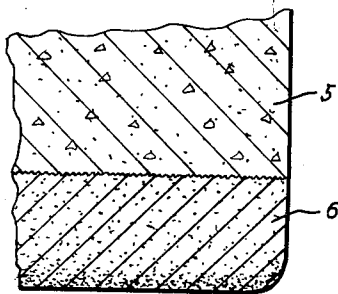


Fig. 4.

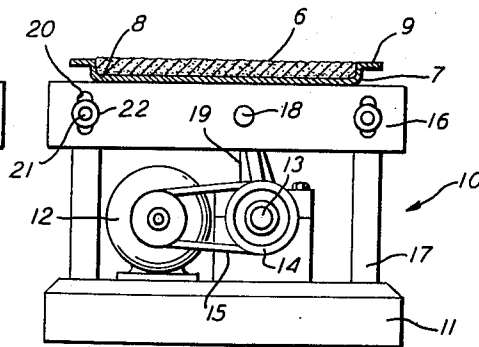


Fig. 2.

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METHOD OF FACING CONCRETE BLOCKS
WITH TILE

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3 Claims. (Cl. 18-60)

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This invention relates to an improved method for forming tile surfaces on concrete building blocks, and other building blocks made of cinders and cement, shale and cement, or the like.

An object of the invention is to provide a tile surface on a block of the described class and which surface is not only hard, but will not crack or craze. A tile surface made in accordance with the present invention provides an unusually smooth surface which may be waxed or polished after forming to effect a high gloss finish.

Another object of the invention is to provide a stronger bond between tile facings and the surface of the block upon which it is secured.

A further object of the invention is to provide a method for tile facing concrete blocks after the latter have been formed and thoroughly cured.

The invention will be more readily understood by reference to the following description and the accompanying drawings.

Figure 1 is a perspective sectional view of a building block having one face tiled in accordance with the invention.

Figure 2 is a side elevation of a vibrating machine and showing a mold containing the plastic mixture placed thereon.

Figure 3 is an elevation and sectional view, similar to Figure 2, and showing a building block positioned on the tile mixture in the mold.

Figure 4 is an enlarged broken sectional view showing the resulting integration between the tile surface and the building block surface.

In carrying out the invention, the surface of the building block 5 to be tiled is sprayed with water, but is not thoroughly soaked. The quantity of water used is sufficient when the surface to be tiled is merely moistened, and if any more water is used the blocks should be allowed to partially dry. The tile surface material 6 is made of one part cement and two parts of sharp sand, marble chips, or the like, and mixed with water, quantity sufficient to make a thick plastic mass.

The tile mixture 6 is placed in molds 7 having cavities 8 the size of the surface of the block 5 to be tiled, and sides of the cavities are tapered downwardly and inwardly, whereas the rims of the molds are outwardly flanged, as at 9. The cavities 8 are covered with a wax mixture, not shown, and allowed to dry. Preferably, the wax mixture contains 12% hard wax by weight and 88% naphtha by weight and is applied to the

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cavities 8 by means of a rag or a brush. After the wax mixture is dry it is wiped smooth with a dry rag. Either candelilla, or carnauba, or any other hard wax may be used in the mixture.

The mold 7 containing the plastic tile surface material 6 is then placed on a vibrating machine, generally designated by the numeral 10, and which machine imparts a vertical vibrating action to said mold and its contents. Any suitable vibrating machine may be employed, and the machine 10 shown includes a base 11, a motor 12, an eccentric, not shown, mounted on a shaft 13, and which shaft is provided with a pulley 14 and connected with the motor by means of a belt 15. Vertically movable supports 16 are supported on the base 11 by means of standards 17, and which supports are connected with the eccentric by means of a pin 18 mounted therein and a connecting arm 19. Vertical slots 20 in the supports 16 are engaged on pins 21, which project from the standards 17. Washers 22 on the outer ends of the pins 21 secure the supports 16 against lateral displacement.

The vibrating action of the machine 10 causes the heavy particles in the mixture 6 to precipitate to the bottom of the mold cavity 8, and at the same time the excess water, if any, rises to the top of the mixture 6. While the mixture 6 is still in a plastic state, the building block is placed on the upper surface of the mixture and the weight of the same causes initial integration between the block and the mixture. The machine 10 is again vibrated, causing the upper surface of the mixture to further integrate with and become bonded with the block 5. The mold 7, the mixture 6, and the block thereon, are then removed from the machine 10 and allowed to cure. Under ordinary circumstances and at ordinary room temperatures, three days are required for the curing process. It is to be understood that other curing methods may be employed, such as steam curing, whereby the period may be shortened. By reason of the block 5 covering the mixture 6 during the curing process, the evaporation of the water in the mixture is retarded, and whereby a properly cured and hardened tile surface is made.

After the curing process, the molds may be readily removed by striking the projecting flanges 9, and by reason of the wax divider, the mold may be removed without chipping or breaking the tile surface 6.

The present invention is not limited to the specific method herein described, but may be

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made in many ways within the scope of the appended claims.

What is claimed is:

1. The method of casting a tile surface on a surface of a concrete building block or the like, which consists in placing a pliable mixture of cement, sand and water, in a shallow horizontal mold being slightly larger than said surface of said block, vibrating said mold and its contents until the heavier particles therein settle to the bottom adjacent the upper surface of said mold, placing the building block to be surfaced on said mixture while the latter is still in a pliable state and allowing the weight of said block to bear thereagainst, again vibrating said mold with said block in its described position causing said mixture to penetrate the interstices of said block, allowing said mixture to dry in said mold, and subsequently removing said mold.

2. The method of casting a tile surface on a surface of a concrete building block or the like, which consists in waxing the inner surface of a shallow mold being slightly larger than said surface of said block, placing a pliable mixture of cement, sand and water in said mold while the latter is in a horizontal position, vibrating said mold and its contents until the heavier particles therein settle to the bottom thereof and adjacent the surface of said mold, placing the building block to be surfaced on said mixture while the latter is still in a pliable state and allowing the weight of said block to bear thereagainst, again vibrating said mold with said block in its described position causing said mixture to pene-

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trate the interstices of said block, allowing said mixture to dry in said mold, and subsequently removing the mold.

3. The method of casting a tile surface on a surface of a concrete building block or the like, which consists in placing a pliable mixture comprised of one part cement, two parts sharp sand, and water, quantity sufficient to make a thick plastic mass, in a shallow horizontal mold being slightly larger than said surface of said block, vibrating said mold and its contents until the heavier particles therein settle to the bottom thereof and adjacent the surface of said mold, placing the building block to be surfaced on said mixture while the latter is still in a pliable state and allowing the weight of said block to bear thereagainst, again vibrating said mold with said block in its described position causing said mixture to penetrate the interstices of said block, allowing said mixture to dry in said mold, and subsequently removing the said mold.

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