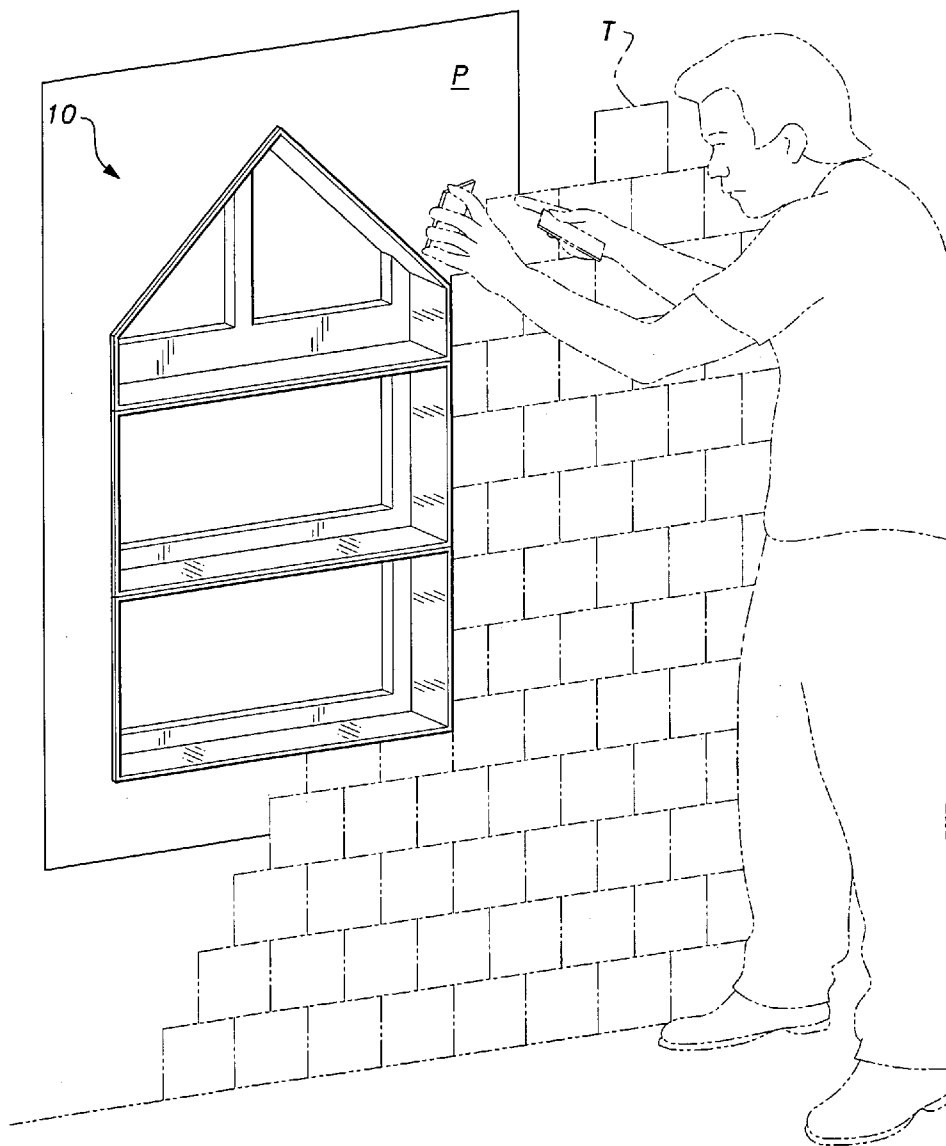


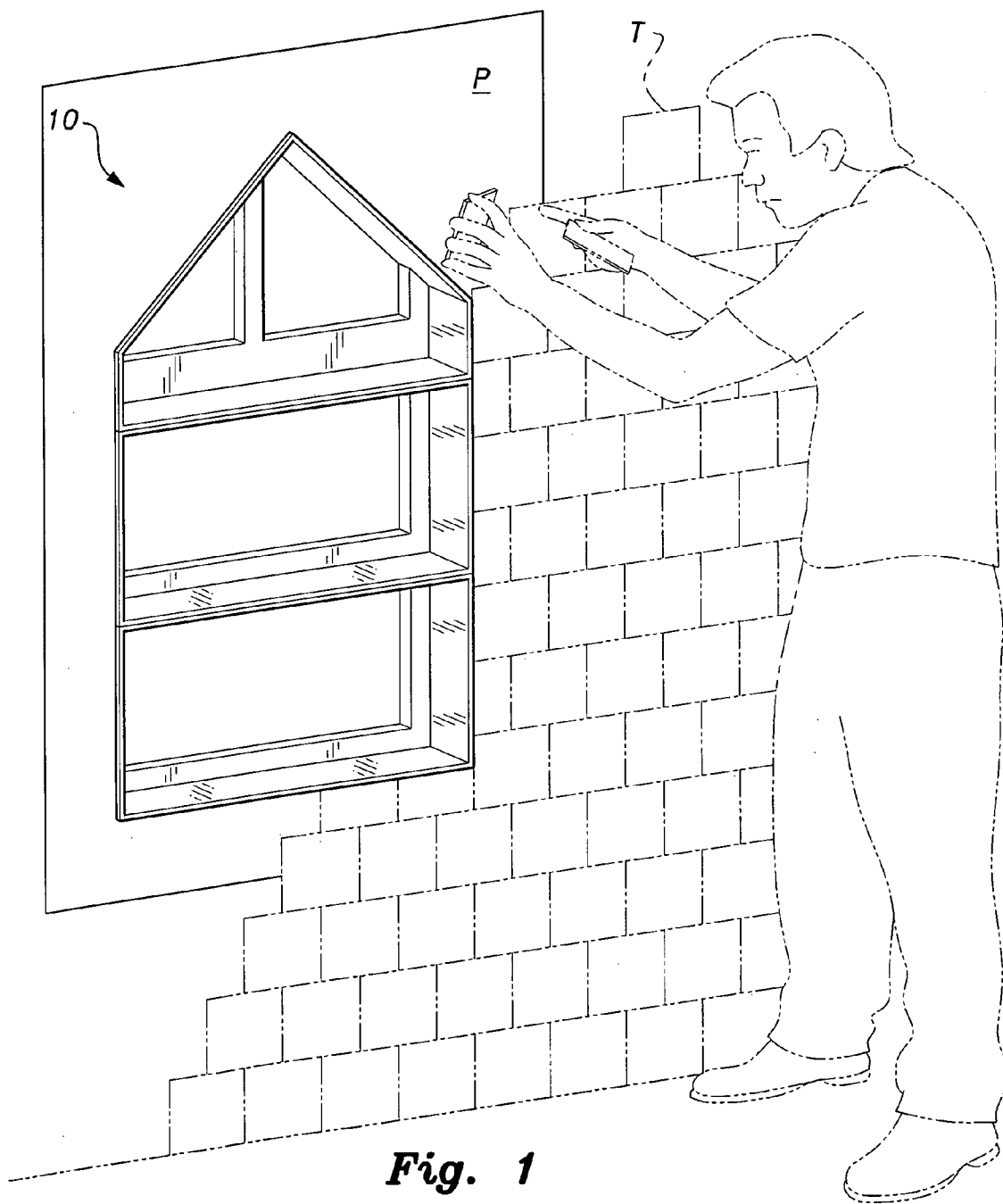


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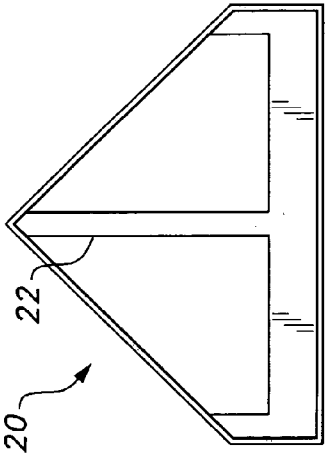
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**Golliday**(10) **Pub. No.: US 2010/0307104 A1**(43) **Pub. Date: Dec. 9, 2010**(54) **CERAMIC TILE INSTALLATION SYSTEM****Publication Classification**(76) Inventor: **Gregory B. Golliday**, Powhatan,  
VA (US)(51) **Int. Cl.**  
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(52) **U.S. Cl.** ..... **52/747.11; 52/749.11**(57) **ABSTRACT**Correspondence Address:  
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The ceramic tile installation system includes a plurality of shaped inserts adapted to be insertably mounted inside an opening or a shaped recess of predefined depth in a wall niche preform; the plurality of inserts having shapes configurable, alone or in combination, to conform to the shape of the recess; each insert having an enclosed sidewall of a given width, the sidewall width being larger than the depth of the of the preform recess to thereby provide a ledge for supporting tiles as the tiles are being installed around the shaped recess. The inserts may include reinforcing ribbing disposed along the interior of the sidewall.

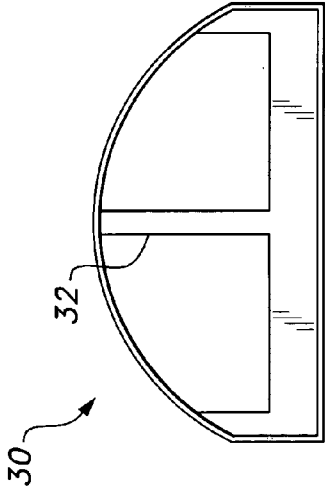
(21) Appl. No.: **12/457,242**(22) Filed: **Jun. 4, 2009**



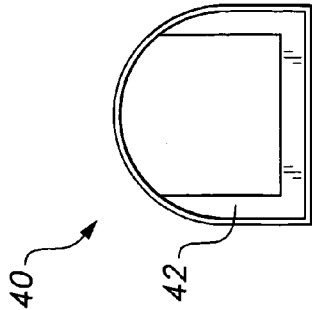
**Fig. 1**



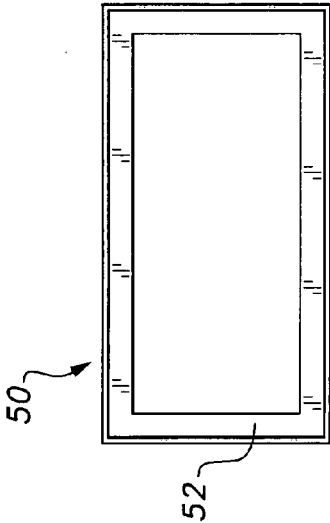
**Fig. 2A**



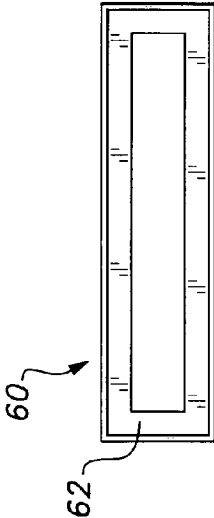
**Fig. 2B**



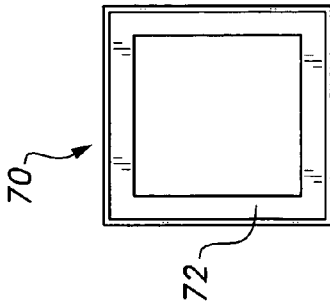
**Fig. 2C**



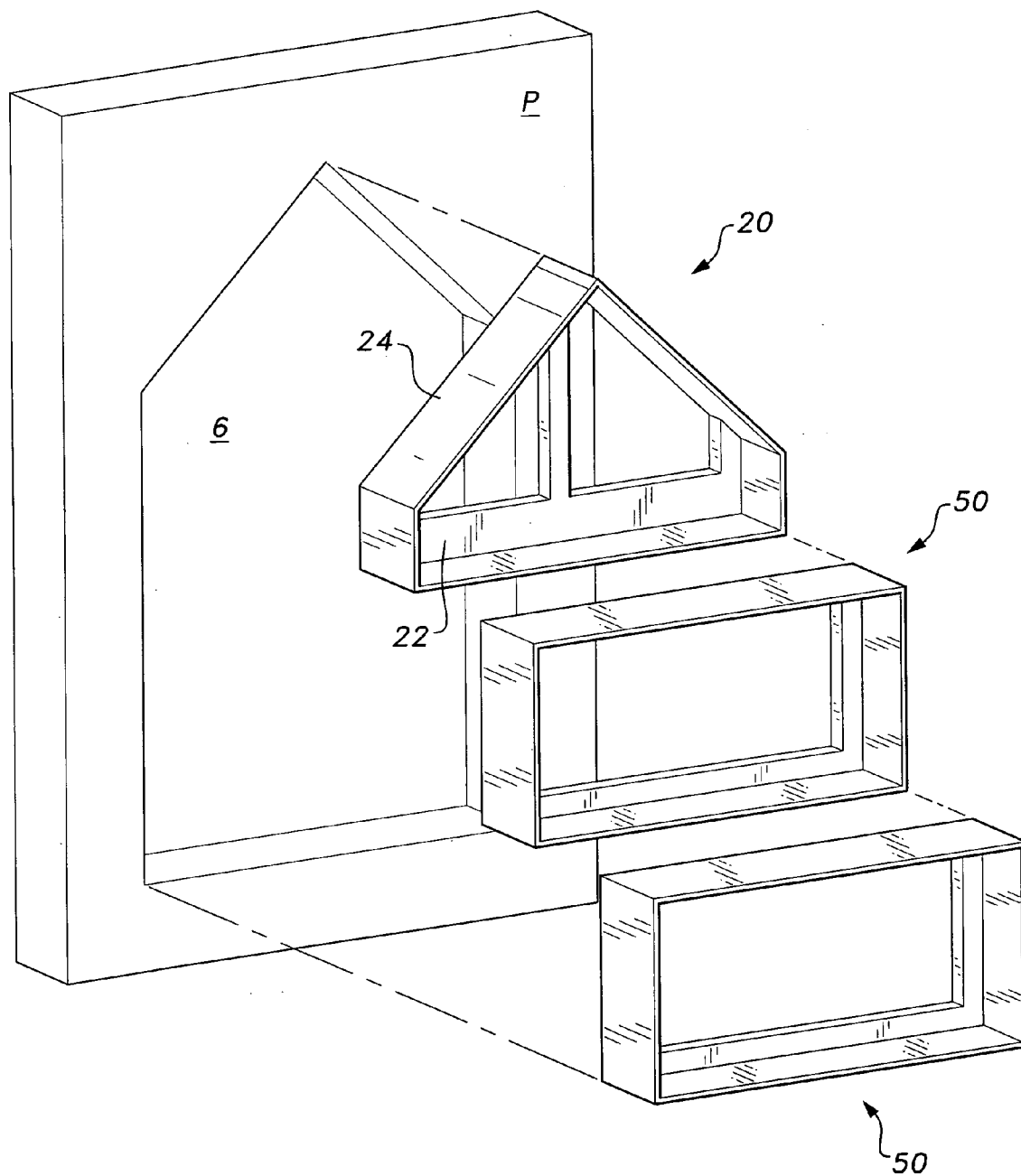
**Fig. 2D**



**Fig. 2E**



**Fig. 2F**



**Fig. 3**

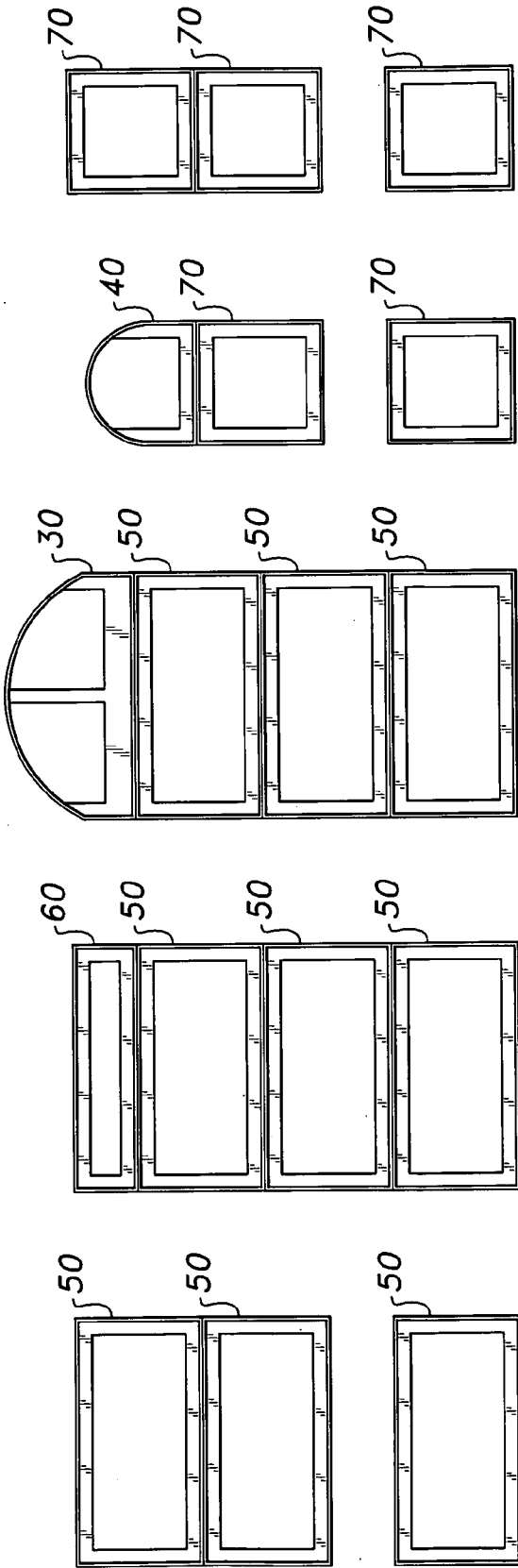


Fig. 4A Fig. 4B Fig. 4C Fig. 4D Fig. 4E

## CERAMIC TILE INSTALLATION SYSTEM

### BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to home improvement aids, more specifically, to a ceramic tile installation system, tool or guide capable of being reconfigured for variously shaped niches or openings in a wall being constructed so that the tiles may be supported during installation without nails or other makeshift supports.

[0003] 2. Description of the Related Art

[0004] Tiles have been widely used to provide both utilitarian and decorative fascia on the walls and floors of dwellings. Currently, the basic tile installation comprises prepping the wall for the tiles, spackling a layer of adhesive on the prepped wall, and then laying a pattern of tiles on the wall. Because the tiles are placed on top of the layer of adhesive, the installed tiles need time to set. In most instances, this type of tile installation is straightforward with minimal problems on a uniform wall. However, when tiles are installed around a shaped opening or niche in the wall, certain problems arise. Without some sort of support, the tiles around the opening have a tendency to slide off from the adhesive layer due to the weight of the tile. Makeshift supports have been used to compensate, but its very nature is impermanent and time consuming to utilize. Other types of tile installation supports have been proposed, but these devices tend to be relatively complex with mechanisms for adjusting the level requiring much setup time.

[0005] Due to the above problems, it would be beneficial in the art to provide a tiling tool or system that is relatively easy to setup requiring no additional tools or hardware and include a sturdy support surface for laying the tiles in a predefined shape.

[0006] Thus, a ceramic tile installation system solving the aforementioned problems is desired.

### SUMMARY OF THE INVENTION

[0007] The ceramic tile installation system includes a plurality of shaped inserts adapted to be insertably mounted inside a shaped recess or opening of predefined depth in a wall niche preform or opening; the plurality of inserts having shapes configurable, alone or in combination, to conform to the shape of the recess; each insert having an enclosed sidewall of a given width, the sidewall width being larger than the depth of the of the preform recess to thereby provide a ledge for supporting tiles as the tiles are being installed around the shaped recess. Ribbing may be disposed along the interior of the sidewall to reinforce the insert.

[0008] These and other features of the present invention will become readily apparent upon further review of the following specification and drawings.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is an environmental, perspective view of a ceramic tile installation system according to the present invention.

[0010] FIGS. 2A, 2B, 2C, 2D, 2E, and 2F are front views of basic shaped inserts of the ceramic tile installation system according to the present invention.

[0011] FIG. 3 is an exploded view of the ceramic tile installation system according to the present invention.

[0012] FIGS. 4A, 4B, 4C, 4D, and 4E are front views of some possible insert layouts of the ceramic tile installation system according to the present invention.

[0013] Similar reference characters denote corresponding features consistently throughout the attached drawings.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0014] The present invention relates to a ceramic tile installation tool or system **10** that is highly reconfigurable for a variety of applications while being simple, lightweight and easy to use. Initially, it is noted that although the following refers to ceramic tiles, the ceramic tile installation tool **10** is not so limited. The ceramic tile installation system **10** may also be employed to install tiles made from a variety of materials such as glass, marble, plastic, wood, composites or other materials. As shown in FIGS. 2A-2F, the ceramic tile installation system **10** includes a plurality of inserts **20**, **30**, **40**, **60**, **70** (hereinafter referenced as "inserts **20-70**" unless otherwise specified) having a variety of shapes. These inserts **20-70** represent basic shapes that may be used singly or in combination to conform to the various shapes of a wall niche or opening being tiled. The peaked insert **20**, wide arch insert **30** and the narrow arch insert **40** would normally be used for the top portion of the wall niche while the wide rectangle insert **50**, the narrow rectangle insert **60** and the square insert **70** would be used for the main body of the wall niche shape.

[0015] Turning to FIGS. 1 and 3, the following describes details of the peaked insert **20**. It is to be understood that the other inserts are similarly constructed and related details have similar reference numerals associated therewith. The peaked insert **20** includes a gimble shape defined by a relatively thin enclosed sidewall **24**. The sidewall **24** has a width substantially wider than the depth of the wall niche being tiled such that a portion of the sidewall **24** protruding from the niche provides a support surface that the tile may rest while the adhesive sets. To help maintain its shape, the insert **20** includes ribbing **22** disposed along the interior surface of the insert **20**. The ribbing **22** provides increased structural integrity to the insert **20** and additionally serves as a handle for the user to manipulate and/or carry the insert **20**. As noted above, each of the other shaped inserts **30-70** are similarly constructed with respective sidewalls and reinforcing ribbing. The inserts **20-70** are preferably made from molded plastic but other materials such as wood or steel may also be used as long as they are reusable and able to maintain the shape of the insert during use. It is noted that depending on the size of the respective inserts **20-70**, reinforcing ribbing **22** may not be necessary, e.g., a small insert would not require ribbing to maintain structural integrity and the shape thereof.

[0016] As mentioned above, the ceramic tile installation system **10** is highly reconfigurable, and the following describes one exemplary configuration in using the tile installation system **10**. Referring to FIGS. 1 and 3, when a user desires to build a peak shaped niche or opening in a wall and tile around the niche, a prefabricated form or preform **P** is installed between studs at a predetermined location. The preform **P** may be a rectangular block of construction grade Styrofoam or similar material having a recess **6** with a shape and depth that defines the dimensions of the wall niche. The edges of the preform **P** are then sealed. Prior to tiling around the niche, the user places a combination of inserts **20**, **50** into the recess that match or conform to the shape of the recess. The sidewalls thereof protrude from the recess **6** such that

they provide a ledge or support surface for the tiles, which, especially around the peaked portion of the niche, supports the tiles as the adhesive sets. Once the inserts **20**, **50**, **50** have been properly installed, the user may then install the tiles **T** using the protruding portion of the sidewalls as both a support surface and a guide. After the tiles **T** are set, the inserts **20**, **50**, **50** are removed from the preform **P**.

[0017] A variety of preforms **P** with various different niche shapes are available. To accommodate these preforms **P**, FIGS. **4A-4E** show examples of how the shaped inserts **20-70** may be used in combination to conform to the recess shape. Notably referencing FIGS. **4A**, **4D** and **4E**, these configurations show wall niches having spaced apart compartments, e.g., a bathroom medicine cabinet. Alternatively, each of the inserts **20-70** may be used singly for smaller shaped niches. Furthermore, while the above describes using the inserts **20-70** with a wall niche preform **P**, it is also possible to use the inserts **20-70** without a preform. It is also noted that the ceramic tile installation system **10** may be modified in size and shape for non-standard shaped wall niches such as plumbing fixtures, windows, doors and other openings.

[0018] Thus, it can be seen that the ceramic tile installation system **10** is highly reconfigurable for a variety of shaped wall recesses. The relative simple construction of the inserts **20-70** facilitate efficient use of time and setup for installing the tiles due, in part, to the ease of installing the inserts **20-70**.

[0019] It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any and all embodiments within the scope of the following claims.

I claim:

1. A ceramic tile installation system, comprising at least one shaped insert adapted to be inserted into a shaped opening having a given depth, the insert having an enclosed sidewall defining at least a portion of the shape of the shaped opening, the sidewall including a width larger than the depth of the shaped opening;

wherein the sidewall is dimensioned to protrude from the shaped opening a given distance, thereby providing a support and guide surface for tiles being installed around the insert.

2. The ceramic tile installation system according to claim 1, further comprising a wall niche preform, the shaped opening being defined by the wall niche preform.

3. The ceramic tile installation system according to claim 1, further comprising ribbing along the inside of the at least one shaped insert.

4. The ceramic tile installation system according to claim 1, wherein said at least one shaped insert comprises a plurality of shaped inserts, each of the shaped inserts having a shape different from the other.

5. The ceramic tile installation system according to claim 4, further comprising ribbing along the inside of the plurality of shaped inserts.

6. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a peaked gimble.

7. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a wide arch.

8. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a narrow arch.

9. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a wide rectangle.

10. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a narrow rectangle.

11. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is shaped as a square.

12. The ceramic tile installation system according to claim 4, wherein one of the shaped inserts is custom-shaped.

13. A method of using a ceramic tile installation tool for installing tiles around a shaped opening, comprising the steps of:

providing at least one shaped insert having an enclosed sidewall defining the shape of the insert, the sidewall having a width;

installing the at least one insert into the opening in a configuration matching the shape of the opening, the opening having a depth, the sidewall width being greater than the depth of the recess so that a portion of the sidewall extends outwardly past a face plane of the opening; and laying tiles around the at least one shaped insert;

whereby the outwardly extending portion of the sidewall supports and guides the layout of the tiles around the insert.

14. The method of using a ceramic tile installation tool for installing tiles according to claim 13, further comprising the step of installing a wall niche preform, said wall niche preform defining said shaped opening.

15. The method of using a ceramic tile installation tool for installing tiles according to claim 13, further comprising the step of providing ribbing to the at least one insert to thereby reinforce the structure and serve as a handle.

16. The method of using a ceramic tile installation tool for installing tiles according to claim 13, further comprising the step of providing a plurality of shaped inserts, each shaped insert having a shape different from the other.

17. The method of using a ceramic tile installation tool for installing tiles according to claim 16, wherein the shape of each insert is selected from the group consisting of a peaked gimble, wide arch, narrow arch, wide rectangle, narrow rectangle, square, circle or a custom shape.

18. The method of using a ceramic tile installation tool for installing tiles according to claim 16, wherein each the shaped inserts are used singly and in combination to match the shape of the recess.

19. A ceramic tile installation system kit comprising a plurality of shaped inserts, each of the shaped inserts having a unique shape and an enclosed sidewall defining the shape of the respective shaped insert.

20. The ceramic tile installation system kit according to claim 19, further comprising ribbing disposed along an interior of the shaped inserts to reinforce the shaped inserts and to serve as a handle.

\* \* \* \* \*