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PRECAST CONCRETE VENTILATING LOUVER FENCE

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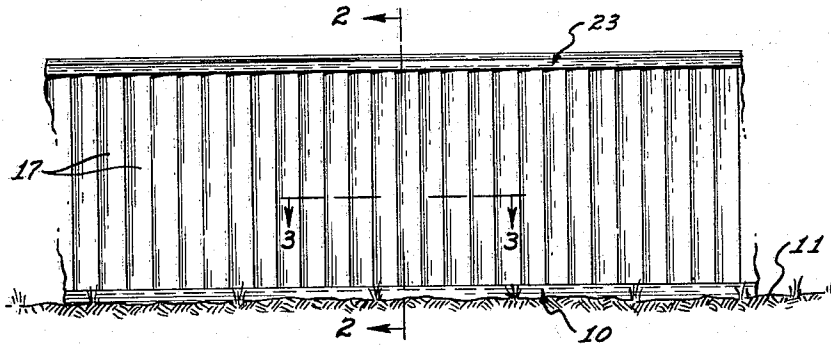


Fig. 1

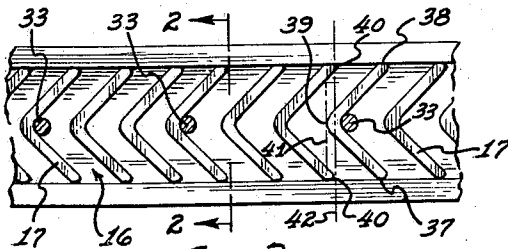


Fig. 3

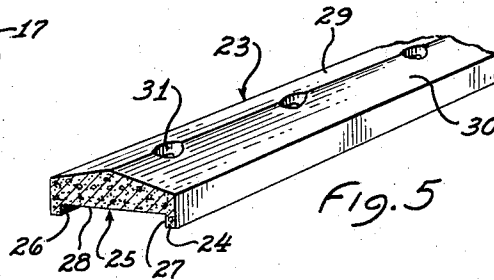


Fig. 5

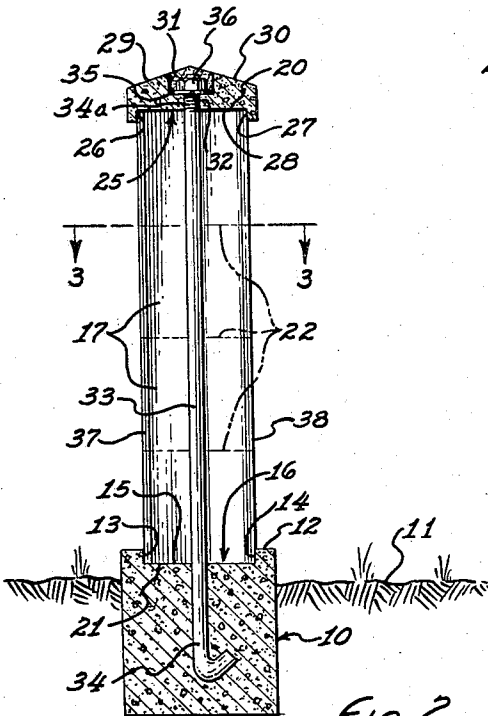


Fig. 2

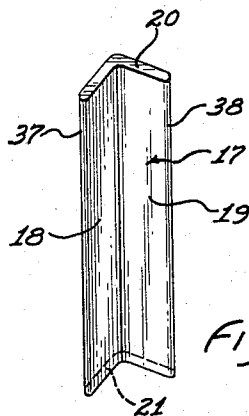


Fig. 4

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PRECAST CONCRETE VENTILATING LOUVER FENCE

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2 Claims. (Cl. 256—19)

This invention pertains to improvements in precast concrete ventilating louver fence structures.

One of the objects of this invention is to provide a wall or fence giving privacy in back yards, surrounding swimming pools, and sun bathing areas and which at the same time permits the passage of wind or movement of air through the fence while completely obscuring any possible vision through the fence.

Still another object of this invention is to provide an improved precast concrete ventilating louver fence of simple construction and parts which may be prefabricated and brought to the job and assembled there with a minimum of time and cost being involved.

Still another object of this invention is to provide an extremely rugged and durable precast concrete ventilating louver fence having only two basic elements of structure together with a foundation formed preferably on the job for quick and efficient assembling of the fence.

Further features and advantages of this invention will appear from a detailed description of the drawings in which:

Fig. 1 is a fragmentary elevation of a precast concrete ventilating louver fence incorporating the features of this invention.

Fig. 2 is an enlarged vertical section on the line 2—2 of Figs. 1 and 3.

Fig. 3 is an enlarged fragmentary section on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the angular member forming the louver structure of the fence.

Fig. 5 is a perspective view of an element forming the cap of the fence.

As an exemplar of one embodiment of this invention there is shown a precast concrete ventilating louver fence structure comprising the foundation 10 which may be precast and set into the ground 11 or may be poured in a suitable trench if desired. The upper surface 12 of the foundation 10 is provided with a longitudinal depression or groove defined by the surfaces 13, 14, and 15 as best shown in Fig. 2 which groove 16 is adapted to receive the angular louver forming members 17. Each of these members comprises an elongated precast unit having the two angularly disposed side elements 18 and 19 precast or otherwise formed integrally together and extending at right angles to one another. The end surfaces 20 and 21 are accurately formed parallel to one another and at right angles to the side elements 18 and 19. The overall length of the members between the surfaces 20 and 21 may vary to suit the height of the fence and it is also within the scope of this invention to have a series of shorter elements 17 with the surfaces 20 and 21 accurately ground precisely parallel and abutted together at the points 22 so as to form any desired height of fence while using a series of standardized angular elements 17.

A cap element as clearly shown in Fig. 5 is provided along the top ends 20 of the louvers 17 comprising the cap piece indicated generally at 23 having a lower sur-

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face 24 in which is formed a longitudinal groove 25 formed by the side surfaces 26 and 27 and the under surface 28 in the cap piece 23. The cap piece 23 is preferably provided with outwardly and downwardly sloping top surfaces 29 and 30 in which are formed the counter bores 31 in the lower portion of which are provided the holes 32. The holes 32 are adapted to be received over the upper ends of the tension rods or pipes 33 which have their lower ends 34 securely fixed in the foundation 10 and are provided with a threaded portion 34a on their upper ends to receive a washer 35 and nut 36, the washer being received in the bottom of the counter bore 31.

The fence is assembled by placing the angular louver forming member 17 in vertical horizontally spaced position such, for example, as shown in Fig. 2 with the lower surface 21 engaging the bottom surface 15 of the groove 16 of the foundation 10 and with the outer edges 37 and 38 engaging the side surfaces 13 and 14 respectively of the grooves 16 and the foundation 10 to prevent any lateral displacement of the louvers 17. The cap member is then placed with the tension rods 34 extending through the holes 32 in the bottom of the counter bores 31 with the under surface 28 of the cap piece 23 resting upon the top surface 20 of the louvers 17, the lateral displacement of the cap being restricted by engagement of the side surfaces 26 and 27 of the groove 25 with the edges 37 and 38 of the louvers 17. The washer and nut 35 are then placed in position on the tension rods 33 and securely tightened up to clamp the cap and louvers tightly down against the surface 15 of the foundation 10. Preferably a tension rod may be placed at spaced intervals and would not necessarily have to be provided for every louver depending upon the size and width of the fence and how much rigidity would be required for the particular installation. After the nut 35 has been suitably tightened down grout is provided in the counter bore to completely fill it to protect the nut and provide a smooth continuous surface for the cap 23 of the fence. Preferably also the inner portion 39 of one louver should overlap the edges 40 of the adjacent louver so as to provide an overlap between the lines 41 and 42 to prevent vision through the fence while at the same time allowing free flow of air between the respective louvers as best shown in Fig. 3.

There is thus provided a fence structure of common modular precast units 17 and 23 which may be assembled to any height on the job while providing tension means 33 for securely locking the entire fence structure together. Furthermore, ventilation is provided while obscuring all visibility. Also, the fence is of a structure such that if it were damaged by engagement by a motor vehicle or the like, the various elements 17 and 23 thus damaged could be easily removed and discarded and new elements placed in their location, it being merely necessary to straighten the tension rods 33 back to their normal vertical position or to weld or buy new rods if they are completely broken off. No other serious damage to the fence could thus result requiring in any way the digging up or replacement of the foundation element 10.

While the apparatus herein disclosed and described constitutes a preferred form of the invention, it is also to be understood that the apparatus is capable of mechanical alteration without departing from the spirit of the invention and that such mechanical arrangement and commercial adaptation as fall within the scope of the appendant claims are intended to be included herein.

Having thus fully set forth and described this invention what is claimed and desired to be obtained by United States Letters Patent is:

1. A precast concrete ventilating louver fence comprising, a foundation member having an upper surface

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including a longitudinal groove formed therein by side surfaces and a bottom surface, a series of vertically disposed horizontally spaced angular louver members having integral angularity disposed side elements forming a crotch with the lower ends of said side elements resting on said bottom surface and the outer edges of the side elements of the louvers engaging the side surfaces of said longitudinal groove of the foundation, a cap piece having a lower surface including a longitudinal groove formed by an under surface and downwardly extending side surfaces thereof adapted to be supported by its under surface resting upon the top surfaces of said angular louver members and said downwardly extending side surfaces engaging the outer edges of the upper ends of said side elements of said louver members, and vertically disposed tension rods anchored at their lower ends in said foundation intermediate said side surfaces of said

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foundation and extending upwardly between said angular louver members and through perforations in said cap pieces for securing said cap piece in abutting end contact with said louver members and said foundation member in abutting end contact with the lower ends of said louver members.

2. In a fence structure as set forth in claim 1 wherein said tension rod extends vertically in the crotch between the angularly disposed side elements of a louver member.

References Cited in the file of this patent

UNITED STATES PATENTS

1,495,934 Thill May 27, 1924

FOREIGN PATENTS

667,810 France June 25, 1929