April 2, 1946. G. ALLEN 2,397,458

LOUVER POST

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Fig. 1.

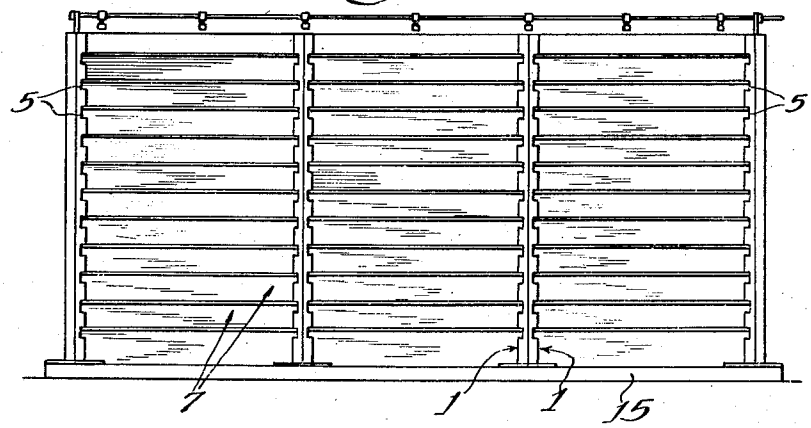
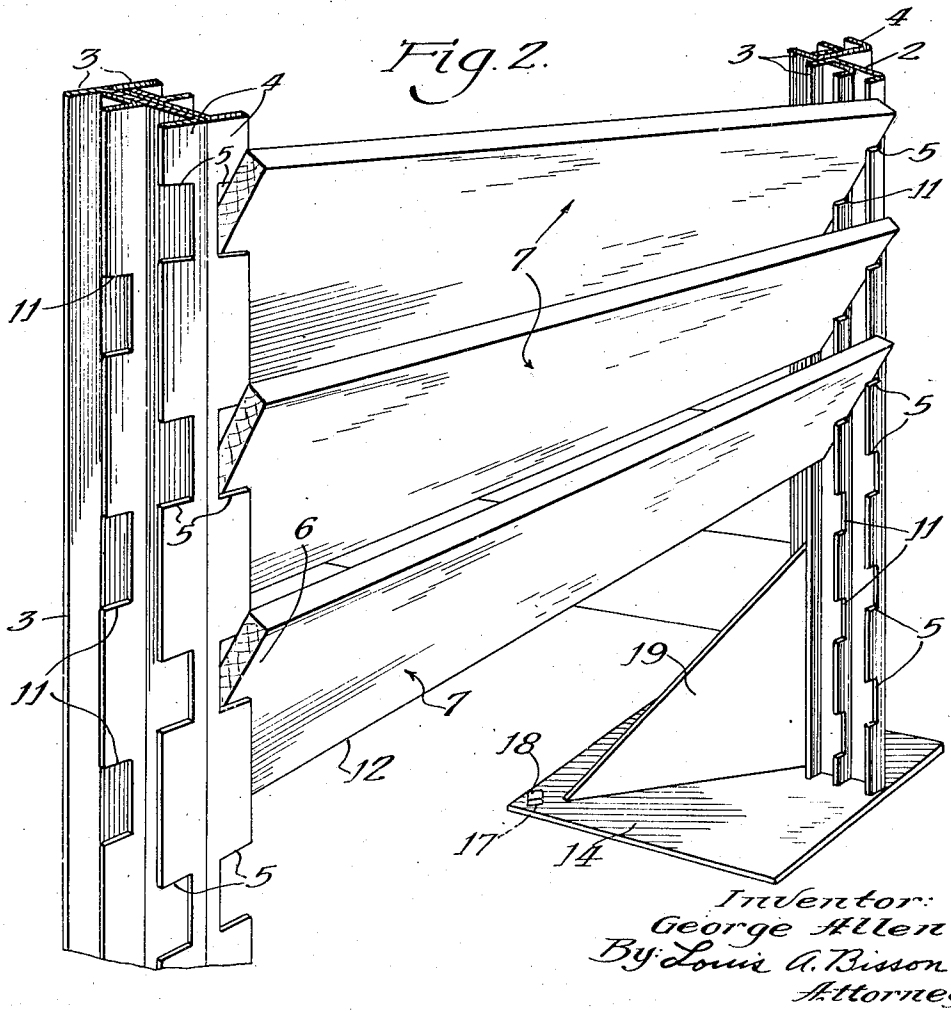


Fig. 2.



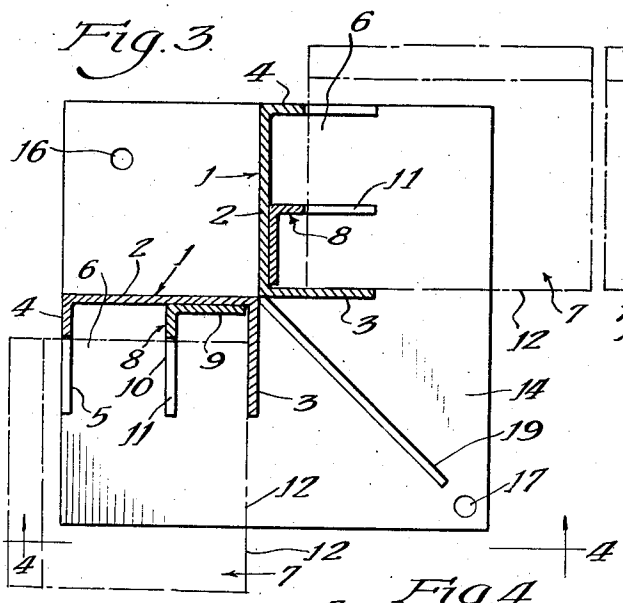
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LOUVER POST

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Fig. 3.



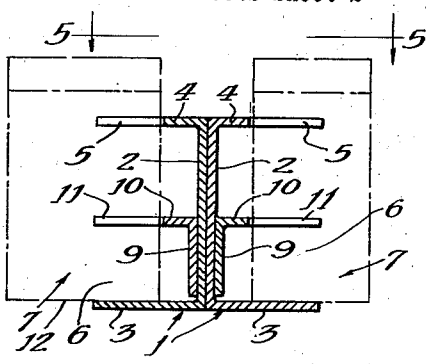


Fig. 5.

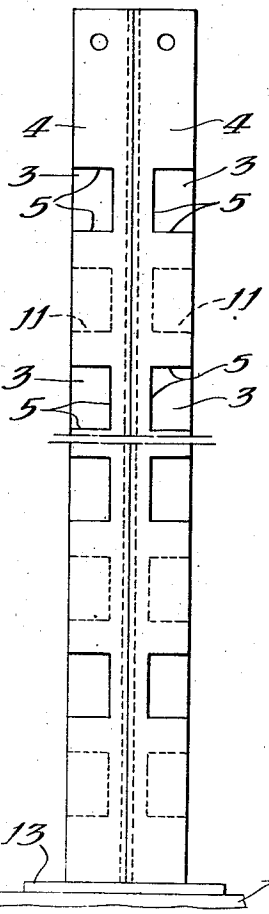
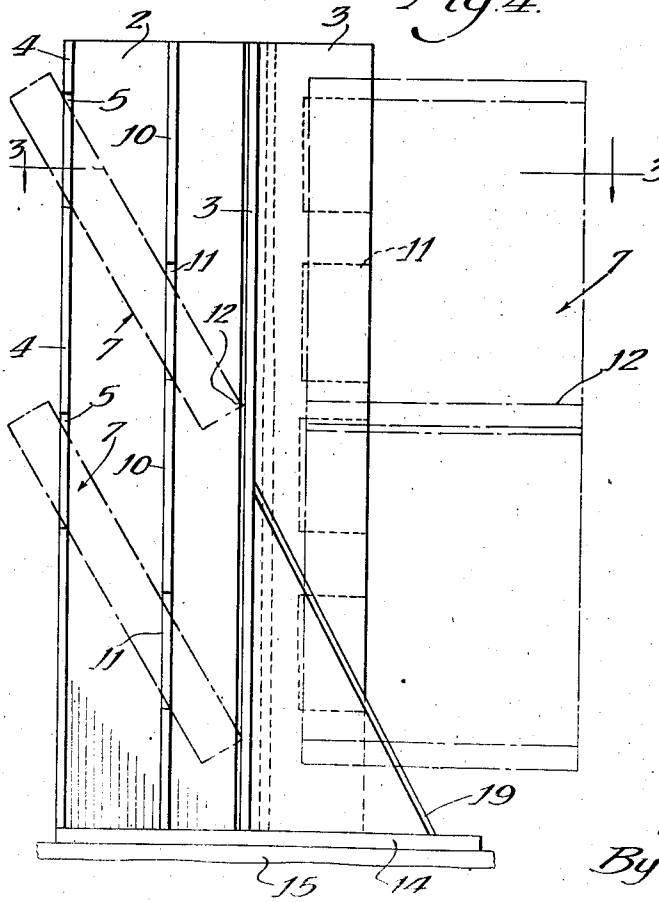


Fig. 4.



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UNITED STATES PATENT OFFICE

2,397,458

LOUVER POST

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Application March 22, 1945, Serial No. 584,217

19 Claims. (Cl. 20—0.5)

The present invention relates to louver posts for louver fencing in spray-cooling systems, such as in atmospheric-cooling towers, spray ponds, or the like.

In spray-cooling towers, ponds, or the like, it is usual to surround the pond or tower space, or the space where the cooling water is sprayed, with a fence or wall having louvers for the passage of air, to prevent spray drift, and the like, and such fences or walls usually are made up of sections with supporting posts at intervals and at the corners for supporting the louver elements, such as louver boards, or the like.

Among the objects of the present invention is to provide a novel supporting means, usually termed posts, which is simple of construction, easily maintained neat and clean, permits facile insertion and removal of the louver boards, which boards may be made of redwood or the like, and omitting the use of any bolts, nails, screws or any other fastening element or means. Fencing of this type may be installed at minimum expense in labor and material.

More particularly, the present invention comprehends a novel device having a series of horizontally spaced upright elements of which at least two of these elements have vertically arranged spaced notches so related that an end of a louver board will rest in a pair of such notches in a slanted position and with the lower edge of the board abutting a third element to hold the board in a given and desired position and relation.

Other objects, advantages, capabilities, features and the like are comprehended by the invention as will later appear, and as are inherently possessed by the invention.

Referring briefly to the drawings:

Fig. 1 is a view in elevation of a structure embodying the invention;

Fig. 2 is a view in perspective, on an enlarged scale, of a part of such structure;

Fig. 3 is a horizontal sectional view taken in a a plane represented by line 3—3 in Fig. 4 of the drawings;

Fig. 4 is a fragmentary side view in elevation taken in a plane represented by line 4—4 in Fig. 3 of the drawings; and

Fig. 5 is a view in side elevation of an intermediate post constructed in accordance with the invention.

Referring more in detail to the drawings, the embodiment chosen to illustrate the invention is shown as comprising an upright member 1 of channel form and having a wall or web portion 2, and flanges 3 and 4, and in the flange 4 are provided a series of notches or cut-outs 5 for receiving an end portion 6 of a louver board 7, as later more fully explained.

Within the channel member 1 is an upright member 8 of angular form and having a flange 9 which may be suitably fixed to the web 2 of the channel member 1, as by spot welding, tack welding, or the like, and having a flange 10 provided with a series of notches or cut-outs 11 for receiving an end portion 6 of the louver board 7, these notches 5 and 11 being so related, as in a sort of staggered relation, so that when the end 6 of the louver 7 extends into a pair of such notches the louver board 7 will be in inclined position, as shown in Figs. 2 and 4, with the lower edge 12 of the louver board abutting against the flange 3 of the member 1.

To form a post between sections the members 1 are placed back to back with the webs 2 and 2 fixed together, as shown in the right-hand portion of Fig. 3, as by spot welding, tack welding, or the like, and to corner posts the members 1 are placed with the back at right angles to each other as shown in the left-hand portion of Fig. 3 and are preferably tack welded at the meeting edges of the webs 2. The lower ends of the members 1 preferably stand upon footings or base members, as plates 13, see Fig. 5, for the center or intermediate posts between sections of the fence, or as plates 14, see Figs. 2 and 3, for the corner posts. In both cases, the lower ends of the members 1 are preferably welded to the base plates or footings 12 and 13 as the case may be. If desired, said base plates may rest upon sills or runners 15 (see Fig. 1) which may rest upon or in the ground, or upon a floor, or a pavement, or the like. If desired, the plates may have holes, such as holes 16 (see Fig. 3) or 17 (see Fig. 2) for passage of securing elements 18, such as a bolt, lag screw, or the like. Usually, it is desirable to reinforce the corner post by gusset pieces or plates, such as plate 19, shown in Figs. 2, 3 and 4, in which the lower edge of the plate 19 is suitably welded to the base plate 14, and the upright edge of the plate 19 is welded, as by tack welding, to the corner juncture of the member 1, as shown in Fig. 3.

In assembling, the posts are located in place on the sills or like supports 15 and secured in place. Then the louver boards 7 are simply slid into place with their louver edges 12 in contact with the flanges 3 and the end portions 6 thereof extending in the notches 5 and 11, as shown. A converse operation effects an as easy removal thereof. The angular positioning of the boards 7, as shown, is such that the wind cannot displace them.

While I have herein described and upon the drawings shown an illustrative embodiment of the invention, it is to be understood that the invention is not limited thereto but comprehends other constructions, arrangements of parts, details, features and the like without departing from the spirit of the invention.

Having thus disclosed the invention, I claim:

1. A louver post of the character disclosed com-

prising a plurality of horizontally spaced upright members of which a pair of said members has notches obliquely alined to receive an end portion of a louver board in inclined position and another of said members is located to abut the lower edge of said end portion of said louver board when the latter is located in said notches.

2. A louver post of the character disclosed comprising a plurality of horizontally spaced upright members of which a pair of said members has notches obliquely alined to receive an end portion of a louver board in inclined position and another of said members is located to abut the lower edge of said end portion of said louver board when the latter is located in said notches, and a footing fixed to the lower end of said members.

3. A louver post of the character disclosed comprising an upright member having an upwardly extending web portion and a plurality of upwardly extending and horizontally spaced flange portions of which a pair of said flange portions has notches obliquely alined to receive an end portion of a louver board in inclined position and another of said flange portions is located to abut the lower edge of said end portion of said louver board when the latter is located in said notches.

4. A louver post of the character disclosed comprising an upright member having an upwardly extending web portion and a plurality of upwardly extending and horizontally spaced flange portions of which a pair of said flange portions has notches obliquely alined to receive an end portion of a louver board in inclined position and another of said flange portions is located to abut the lower edge of said end portion of said louver board when the latter is located in said notches, and a footing fixed to the lower end of said member.

5. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are in abutting relation and held fixed together.

6. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located in parallel relation and having means for holding the same fixedly in said relation.

7. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located face to face with each other and having means for holding the same fixedly in said relation.

8. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located at a normal to each other, and having means for holding the same fixedly in said relation.

9. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are in abutting relation and held fixed together, and a footing fixed to the lower end of said members.

10. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located at a normal to each other, and having means for holding the same fixedly in said relation, and a footing fixed to the lower end of said members.

11. A louver post of the character disclosed comprising an upright member of channel form in cross section and having a web portion and a plurality of flange portions and of which certain of said flange portions have notches for receiving an end portion of a louver board in inclined position and another of said flange portions is located to abut the lower edge of said board when the latter is located in said notches.

12. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located at a normal to each other, and having means for holding the same fixedly in said relation, and a footing fixed to the lower end of said members, and a gusset reinforcing piece fixed to said footing and to said members.

13. A louver post of the character disclosed comprising a pair of members as set forth in claim 3 and in which the web portions are located at a normal to each other, and having means for holding the same fixedly in said relation, and a footing fixed to the lower end of said members, and a gusset reinforcing piece fixed to said footing and to said members at the junction of said web portions.

14. A louver post of the character disclosed comprising an upright member of channel form in cross section and having a web portion and a plurality of flange portions at the edges of said web portion and having another flange portion extending from said web portion and located intermediate of said edge flange portions, said intermediate flange portion and one of said edge flange portions having notches in inclined alinement for receiving an end portion of a louver board in inclined position and the other of said edge flange portions is located to abut the lower edge of said board when the latter is located in said notches.

15. A louver post of the character disclosed comprising a structure as set forth in claim 14 and in which the intermediate flange portion is of angular cross-sectional form and has a flange part fixed to said web portion.

16. A louver post of the character disclosed comprising a pair of structures as set forth in claim 14 and wherein the web portions thereof are disposed at a normal to each other with an edge portion of each of said web portions in contact with each other, and means for fixing said abutting edge portions together.

17. A louver post of the character disclosed comprising a pair of structures as set forth in claim 14 and wherein the web portions thereof are disposed in abutting face to face relation, and means for fixing said abutting web portions together.

18. A louver post of the character disclosed comprising a pair of structures as set forth in claim 14 and wherein the web portions thereof are disposed at a normal to each other with an edge portion of each of said web portions in contact with each other, and means for fixing said abutting edge portions together, a footing fixed to the lower end of said structures.

19. A louver post of the character disclosed comprising a pair of structures as set forth in claim 14 and wherein the web portions thereof are disposed at a normal to each other with an edge portion of each of said web portions in contact with each other, and means for fixing said abutting edge portions together, a footing fixed to the lower end of said structures, and a gusset reinforcing piece fixed to said footing and to said structures.

GEORGE ALLEN.