

May 15, 1962

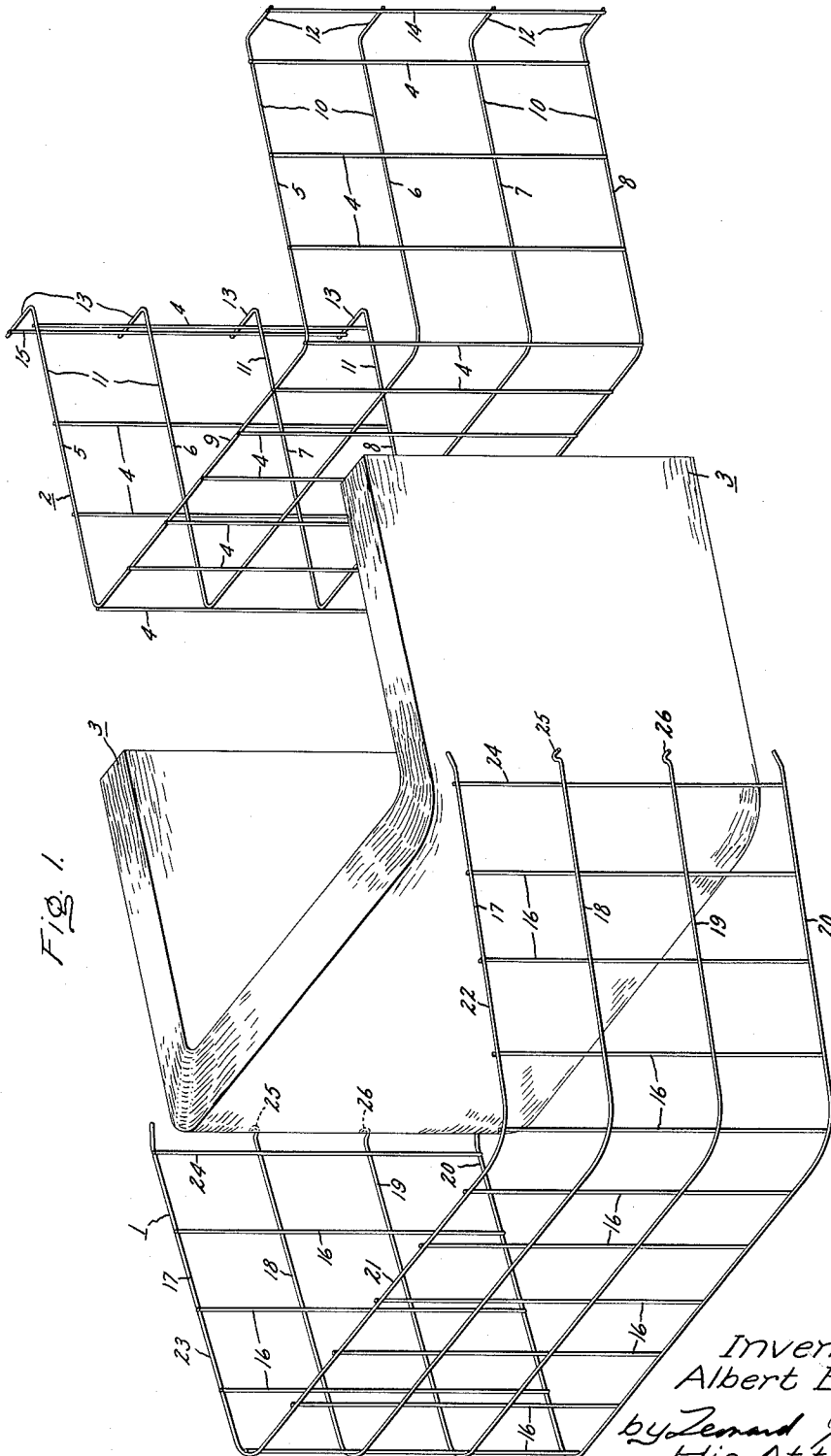
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3,034,772

EVAPORATIVE COOLER PAD HOLDER

Filed Aug. 31, 1959

2 Sheets-Sheet 1



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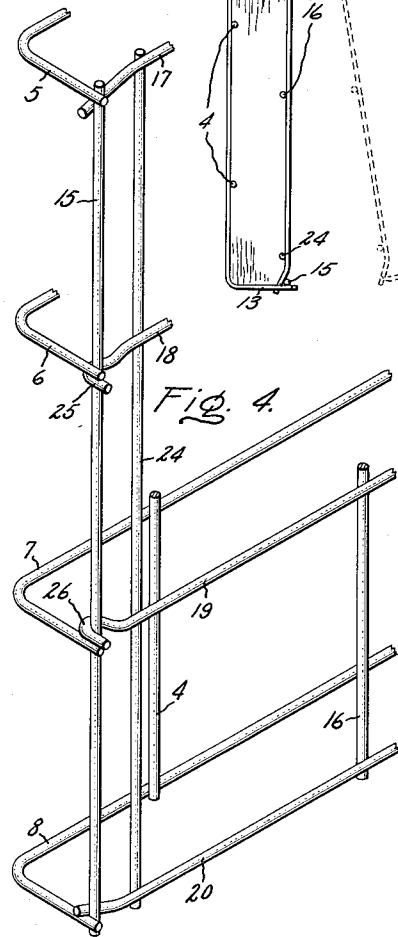
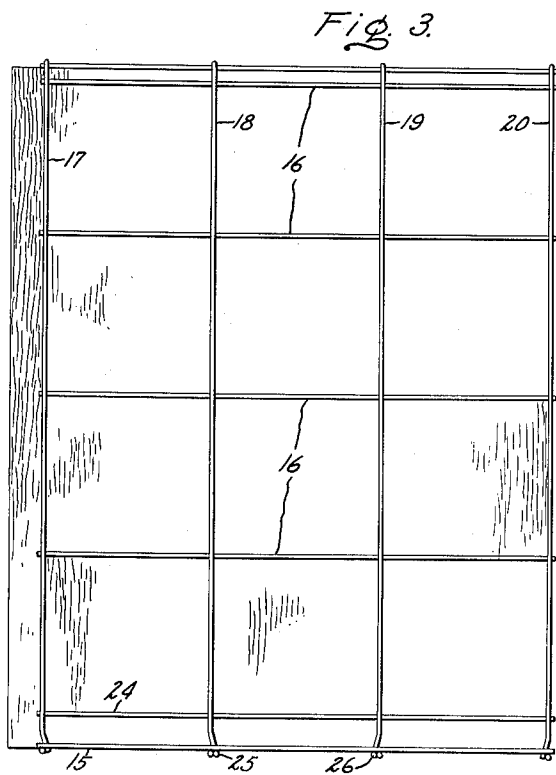
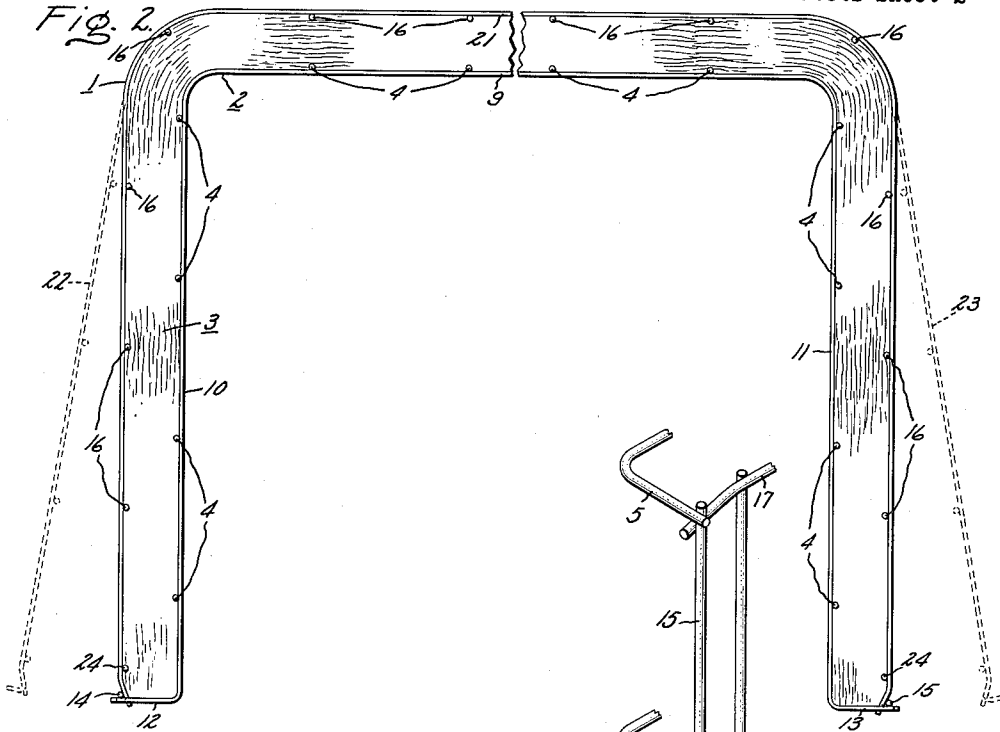
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EVAPORATIVE COOLER PAD HOLDER

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2 Sheets-Sheet 2



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EVAPORATIVE COOLER PAD HOLDER

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Filed Aug. 31, 1959, Ser. No. 837,112
3 Claims. (Cl. 261-94)

This invention relates to evaporative coolers, and more particularly to an improved arrangement for holding an evaporative cooler water absorbent pad.

Evaporative coolers conventionally include a pad of water absorbent material through which passes the air which is to be cooled. An arrangement for securely holding the pad in an upright position so that it does not sag and which also permits quick and easy replacement of the pad is especially desirable.

Accordingly, it is a primary object of this invention to provide an improved means for detachably holding an evaporative cooler water absorbent pad.

It is another object of this invention to provide a low-cost evaporative cooler pad holder having a minimum number of parts which may be easily manufactured and assembled.

In accordance with one aspect of this invention, an inner wire frame and an outer wire frame are uniquely arranged for holding an evaporative cooler water absorbent pad. The inner wire frame includes two side walls disposed generally parallel to each other and a front wall. The outer wire frame has a corresponding outer front wall and two divergent side walls. The water absorbent pad is disposed between the inner and outer frames. Protruding wires extend from the side walls of the outer frame. Thus, the divergent side walls of the outer frame may be pushed toward each other and then released to spring bias the protruding wires of the outer frame into engagement with the inner frame. By this arrangement, a very simple, yet effective means, is provided for detachably holding an evaporative cooler water pad.

Other objects and attendant advantages of this invention will be apparent from the following description taken in connection with the accompanying drawing in which:

FIG. 1 is a front exploded perspective view of the improved evaporative cooler pad holder;

FIG. 2 is a top plan view of the improved holder;

FIG. 3 is a side elevational view of the improved evaporative cooler pad holder; and

FIG. 4 is a fragmentary side perspective view of the improved evaporative cooler pad holder.

Referring now to FIG. 1 of the drawing, there is illustrated the improved evaporative cooler water pad holder comprising an outer frame 1 and an inner frame 2 with an evaporative cooler water absorbent pad 3 between the frames.

In constructing the inner frame, a plurality of vertical wires 4 may be welded or otherwise secured to four generally horizontal wires 5, 6, 7 and 8. The frame is then bent into a generally U-shaped structure to provide an inner front wall 9 and two generally parallel inner side walls 10 and 11. Preferably, end portions 12 and 13 of the side walls are reversely bent to extend generally parallel to front wall 9. As shown in FIG. 2, the extent of the end portions 12 and 13 is determined by the thickness of the water pad 3. As shown, the extreme ends of end portions 12 and 13, include end vertical wires 14 and 15, respectively, for a purpose to be more fully described hereinafter.

The outer frame 1 is formed in substantially the same manner as the inner frame 2 and includes a plurality of vertical wires 16 which may be welded or otherwise secured to four generally parallel horizontal wires 17, 18,

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19 and 20. The outer frame is also bent to form a generally U-shaped structure having an outer front wall 21 and two outer side walls 22 and 23; however, in its unassembled position as shown in FIG. 1 and by the dotted lines in FIG. 2, the side walls 22 and 23 diverge from each other.

A unique arrangement is provided for connection of the frames to each other and for maintaining the frames and the pad in a fixed position. As shown in FIG. 4 of the drawing, the ends of horizontal wires 17, 18, 19 and 20 of the outer frame protrude some distance beyond end vertical wires 24 of the outer frame. These protruding wires are uniquely formed for cooperation with the end portions 12 and 13 of the inner frame. As shown in FIG. 4, the ends of wires 17 and 20 are bent toward each other so that they may be positioned on the inside of horizontal wires 5 and 8, respectively, to restrict vertical movement of the inner frame with respect to the outer frame. In like manner, the intermediate wires 18 and 19 of the outer frame have their ends bent toward each other so that they may be positioned on the inside of horizontal wires 6 and 7, respectively, of the inner frame. Protruding hooks 25 and 26 are formed in the ends of intermediate wires 18 and 19, respectively, for hooking over the inside of the end vertical wires 14 and 15. It can be seen that these hooks cooperate with the end vertical wires 14 and 15 to prevent the inner frame from moving horizontally away from the outer frame, and the hooks cooperate with wires 6 and 7 of the inner frame to prevent the inner frame from moving vertically with respect to the outer frame.

The above described construction facilitates manufacture and assembly of the holder and replacement of an evaporative cooler water pad. In order to securely position a water pad in the holder, it is merely necessary to position the pad on the inner frame, locate the outer frame on top of the pad and push the side walls 22 and 23 of the outer frame toward the inner frame to compress the pad between the frames and to engage the protruding ends of wires 17, 18, 19 and 20 with the end portions 12 and 13 of the inner frame as shown in FIG. 3 and as described above. Then the sides of the outer frames are released and the normal spring bias of the outer frame holds the protruding ends of the horizontal wires of the outer frame in engagement with the inner frame. It can be seen from the foregoing that the evaporative cooler water pad 3 is sandwiched in a secure and reliable manner between the inner frame 1 and the outer frame 2 so that it does not sag. In order to remove the pad from the holder, it can be seen that it is merely necessary to push the sides 22 and 23 of the outer frame inwardly to disengage the ends of protruding wires 17, 25, 26 and 20 from the inner frame.

It should be appreciated that the improved water pad holder comprises only two parts, an inner frame and an outer frame provided with connecting means integrally formed therewith. Thus, an exceedingly simple, yet reliable, evaporative cooler pad holder is obtained.

While there has been shown and described a particular embodiment of this invention, it will be obvious to those skilled in the art that various other changes and modifications can be made therein without departing from the invention, and therefore, it is aimed in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An evaporative cooler pad holder comprising: an inner wire frame formed of a plurality of horizontal wires and a plurality of vertical wires, said inner wire frame

being generally U-shaped to provide an inner front wall and two inner side walls, each of said walls of said inner wire frame having a generally vertical terminal wire, said inner side walls of said inner frame being generally parallel to each other, an outer wire frame having a plurality of horizontal wires and a plurality of vertical wires, said outer frame being bent to form an outer front wall and two divergent outer side walls, said outer wire frame being in overlying relationship to said inner wire frame so that the corresponding walls of said frames are generally parallel to each other, a water absorbent pad disposed between said inner and outer frames, the end portions of each of the side walls of said inner frame being bent outwardly generally parallel to the front wall of said inner wire frame, protruding hooks formed in the ends of two of the wires of said outer frame, said protruding hooks of said outer frame extending through said inner wire frame and inwardly of said terminal wires so that the divergent side walls of said outer wire frame may be pushed toward each other and then released to spring bias the protruding hooks into engagement with the terminal vertical wires of said inner frame to securely hold said water absorbent pad between said inner and outer frames.

2. An evaporative cooler pad holder comprising: an inner wire frame formed of a plurality of horizontal wires and a plurality of vertical wires, said inner wire frame being generally U-shaped to provide an inner front wall and two inner side walls, each of said walls of said inner wire frame having a generally vertical terminal wire, said inner side walls of said inner frame being generally parallel to each other, an outer wire frame having a plurality of horizontal wires and a plurality of vertical wires, said outer frame being bent to form an outer front wall and two divergent outer side walls, said outer wire frame being in overlying relationship to said inner wire frame so that the corresponding walls of said frames are generally parallel to each other, a water absorbent pad disposed between said inner and outer frames, the end portions of each of the side walls of said inner frame being bent outwardly generally parallel to the front wall of said inner wire frame, the top and bottom horizontal wires of said outer frame being bent toward each other, protruding hooks formed in the ends of two of the intermediate wires of said outer frame, said protruding hooks of said outer frame extending through said inner wire frame and inwardly of said terminal wires so that the divergent side walls of said outer frame may be pushed toward each other and then released to spring bias the protruding hooks of said outer frame into engagement with the terminal wires of said inner frame and to position the top and bottom horizon-

tal wires of the outer frame inwardly of the top and bottom horizontal wires of the inner frame to securely hold said water absorbent pad between said inner and outer frames.

3. An evaporative cooler pad holder comprising: an inner wire frame formed of four horizontal wires and a plurality of vertical wires, said inner frame being generally U-shaped to provide an inner front wall and two inner side walls, said inner side walls of said inner frame being generally parallel to each other, an outer wire frame having four horizontal wires and a plurality of vertical wires, said outer frame being bent to form an outer front wall and two divergent outer side walls, said outer wire frame being in overlying relationship to said inner wire frame so that the corresponding walls of said frames are generally parallel to each other, a water absorbent pad disposed between said inner and outer frames, the end portions of each of the side walls of said inner frame being bent outwardly generally parallel to the front wall of said inner wire frame, a terminal vertical wire disposed at the extreme end of each of the side walls of said inner frame, the top and bottom horizontal wires of said outer frame being bent toward each other, the two intermediate wires of said outer frames being bent toward each other and protruding hooks formed in the ends of said two intermediate wires, said protruding hooks of said outer frame extending through said inner wire frame and inwardly of said terminal wires so that the divergent side walls of said outer frame may be pushed toward each other and then released to spring bias the protruding hooks of the two intermediate horizontal wires of said outer frame into engagement with the end vertical wires of said inner frame to position the hooks between the two intermediate horizontal wires of said inner frame and to position the top and bottom horizontal wires of the outer frame inwardly of the horizontal top and bottom wires of the inner frame to thereby securely hold said water absorbent pad between said inner and outer frames.

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