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(54) **PALLET COVER**

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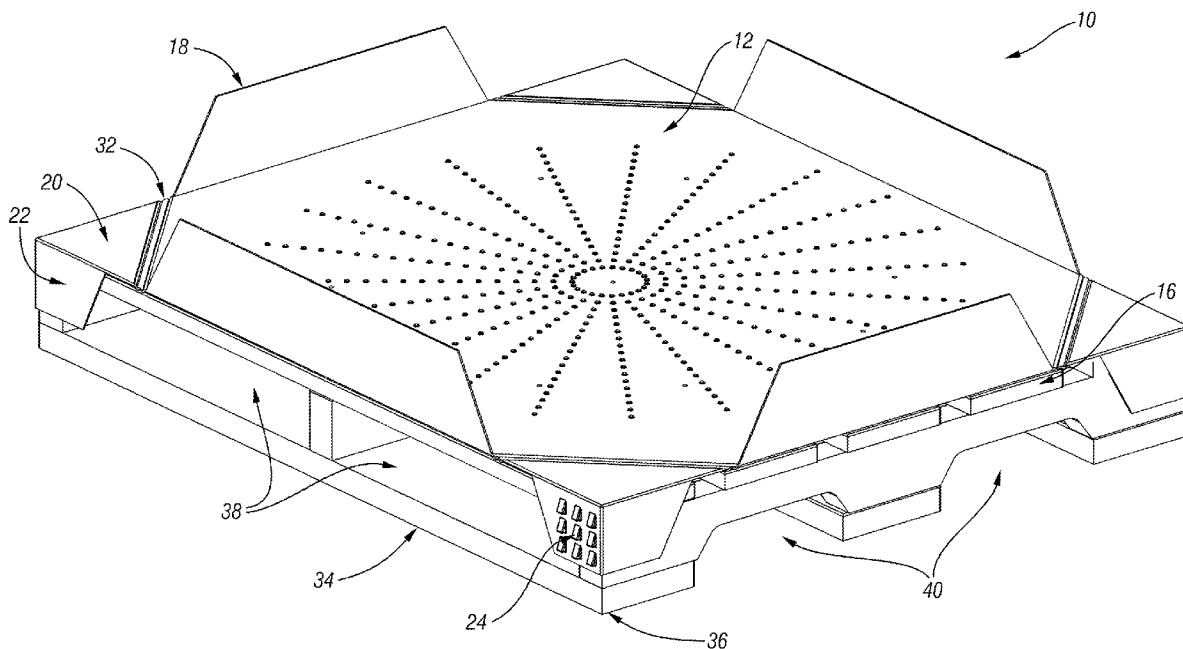
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(57) **ABSTRACT**

A pallet cover includes a deck. A plurality of flanges extend upwardly from the deck and a plurality of legs extend downwardly from the deck. The pallet cover includes a plurality of adjustable corner members that allow the pallet cover to fit pallets of varying sizes. The adjustable corner members operate in an “accordion-like” fashion so that they can be reused on multiple pallets and still retain their original size.

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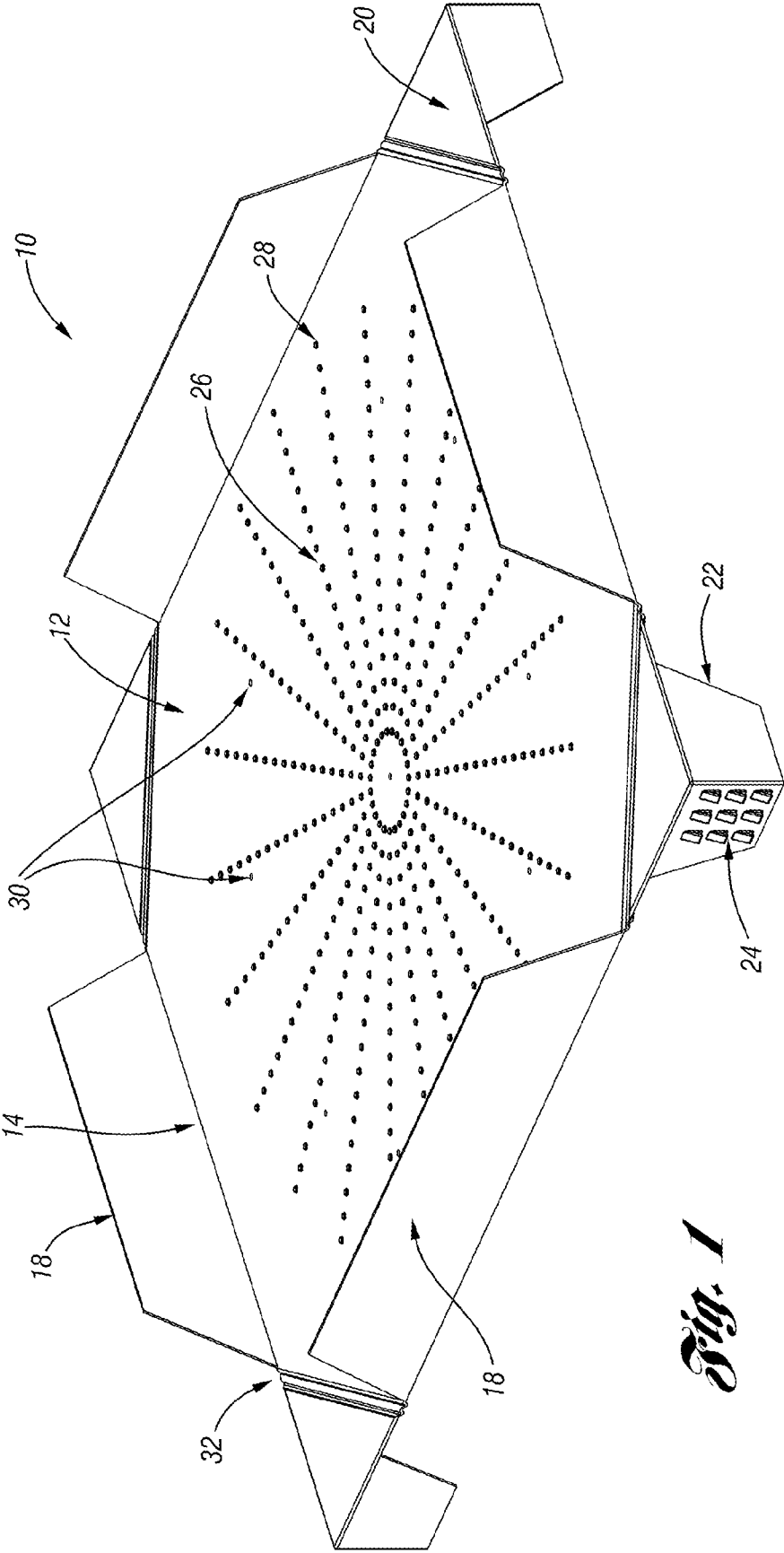


Fig. 1

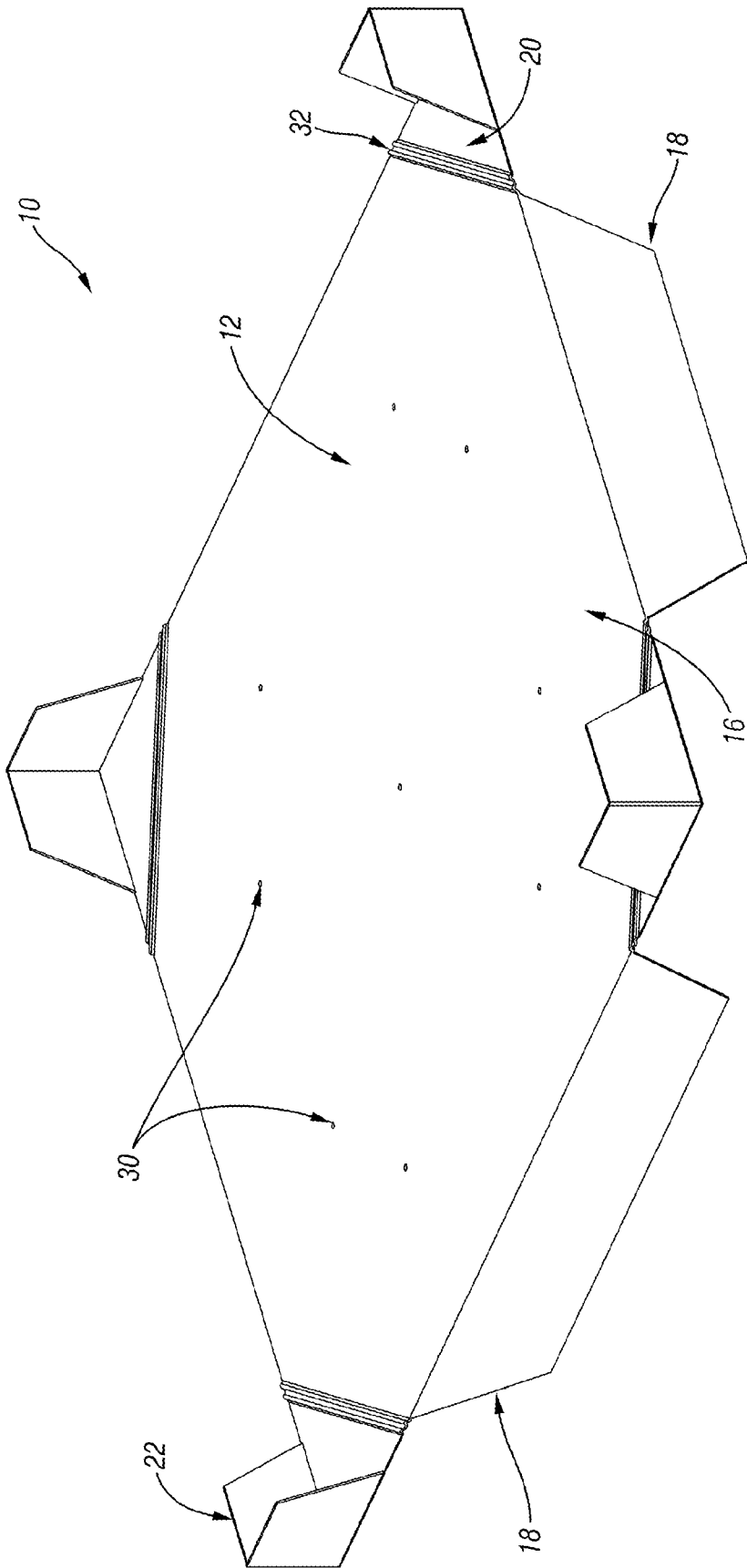


Fig. 2

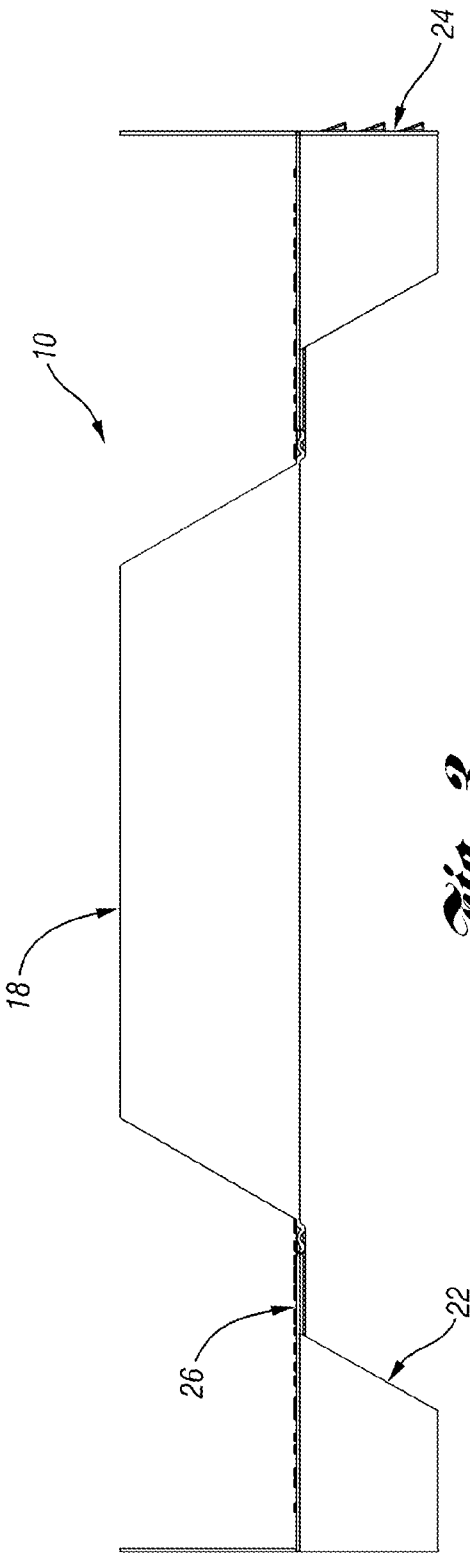


Fig. 3

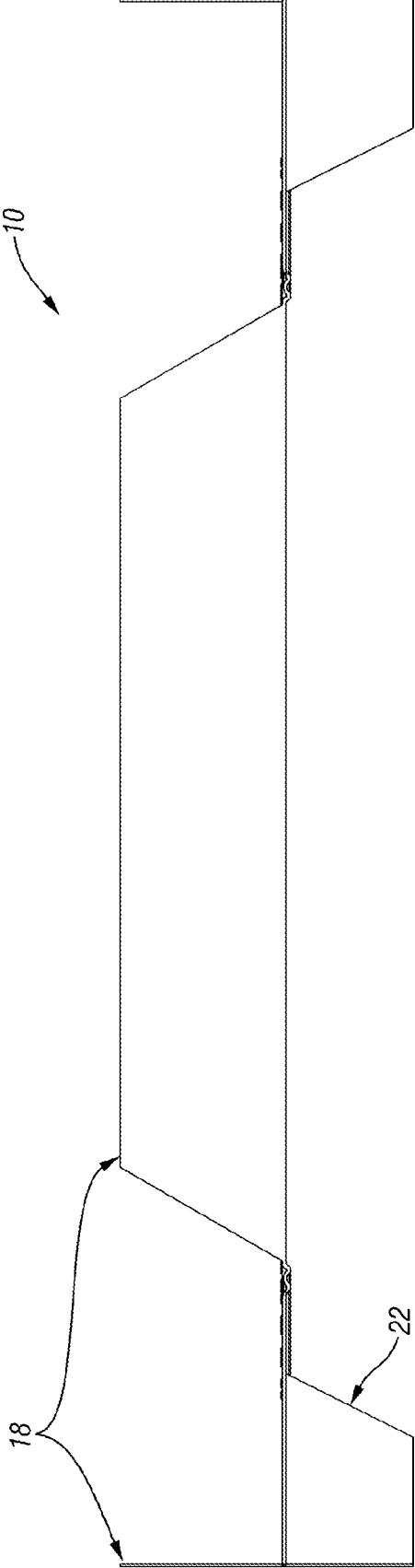


Fig. 4

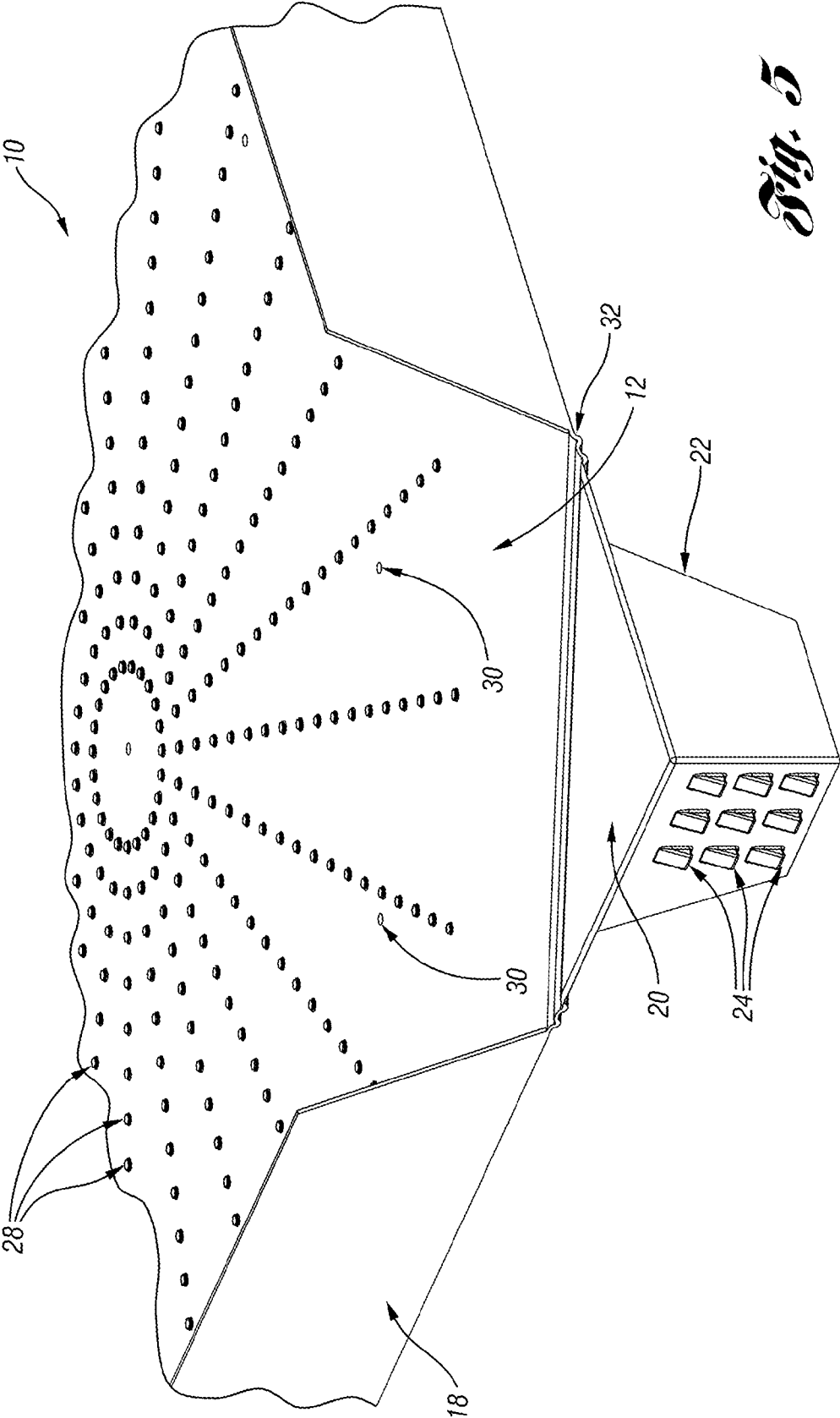


Fig. 5

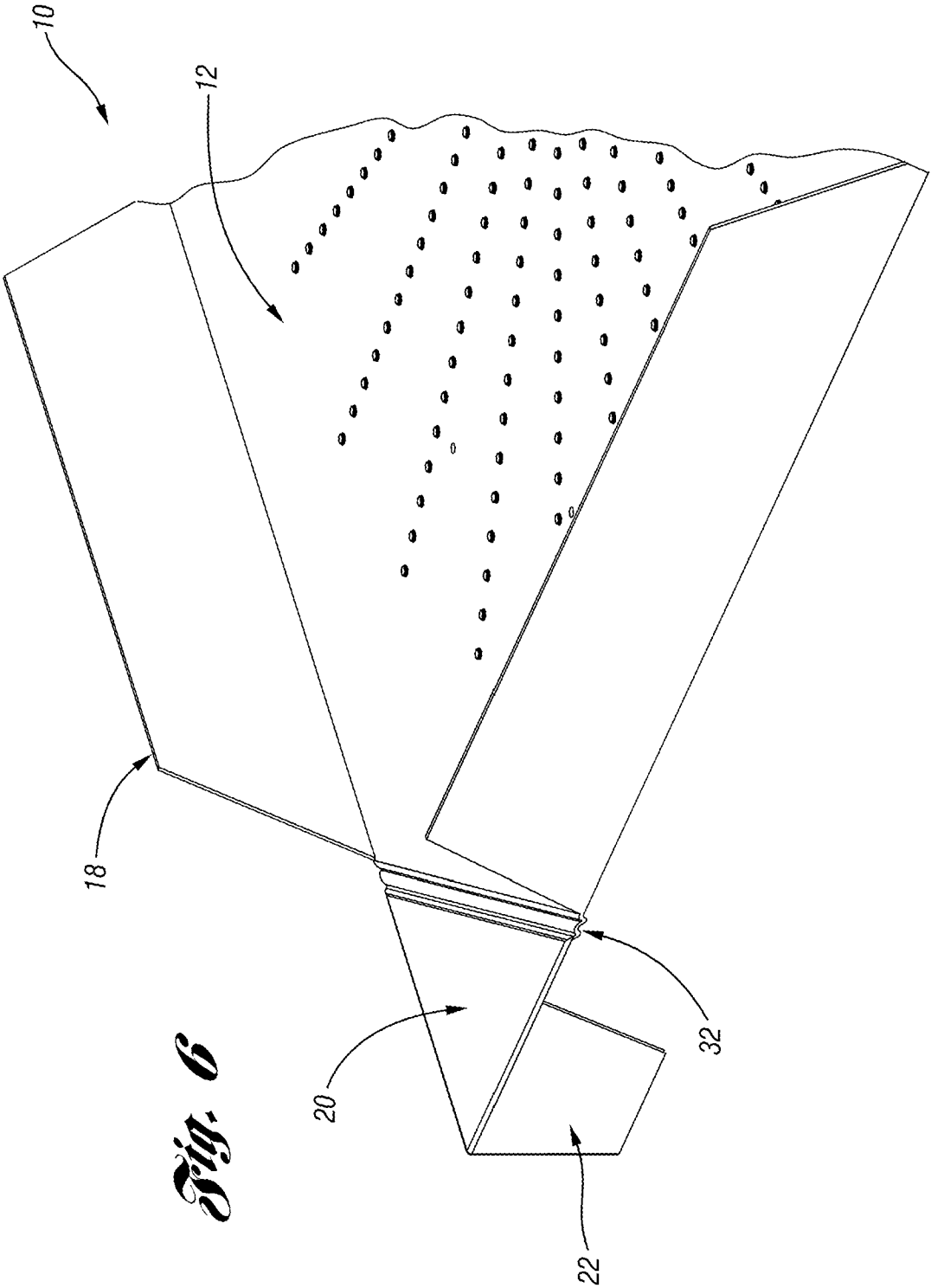


Fig. 6

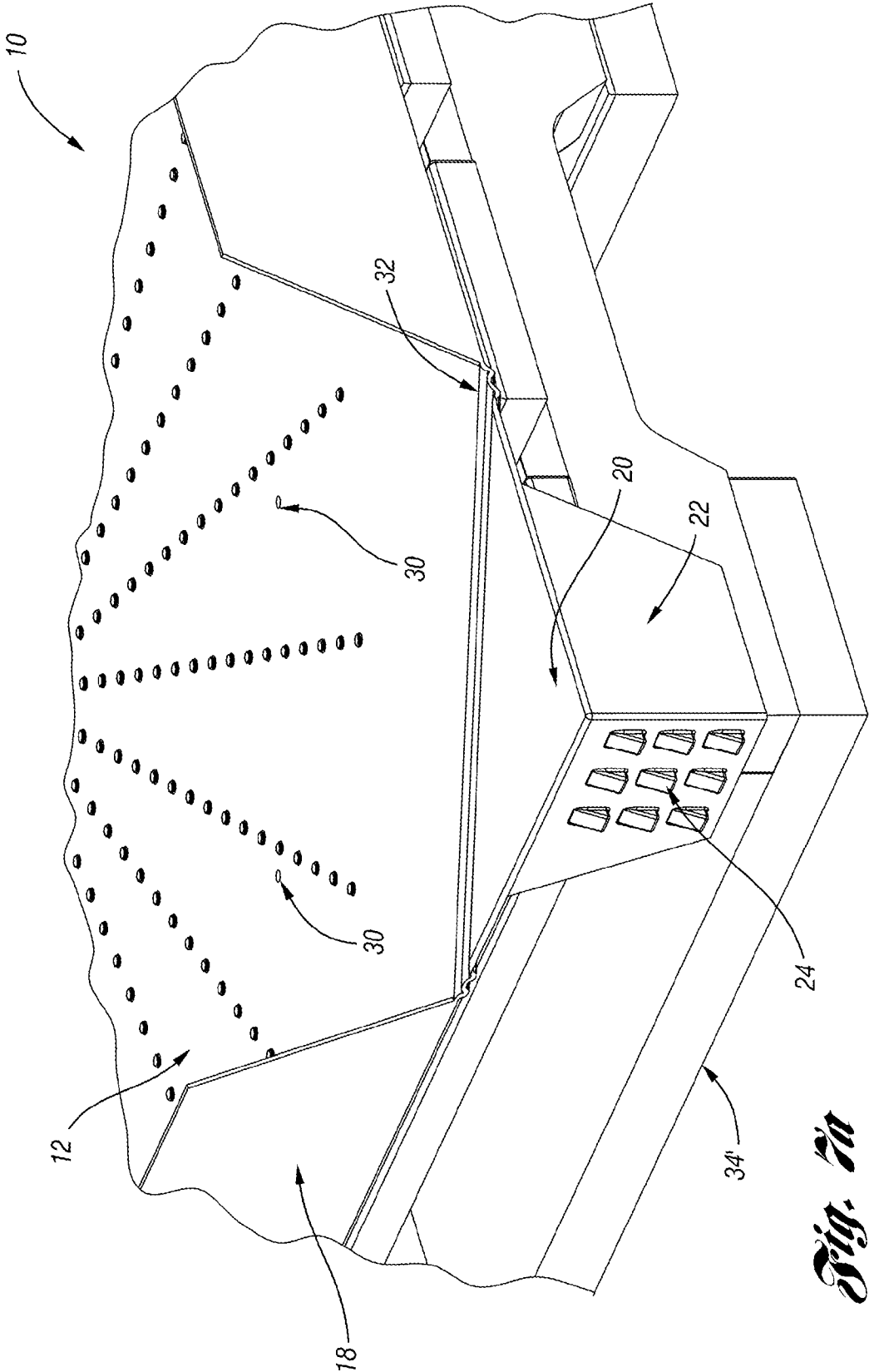


Fig. 7a

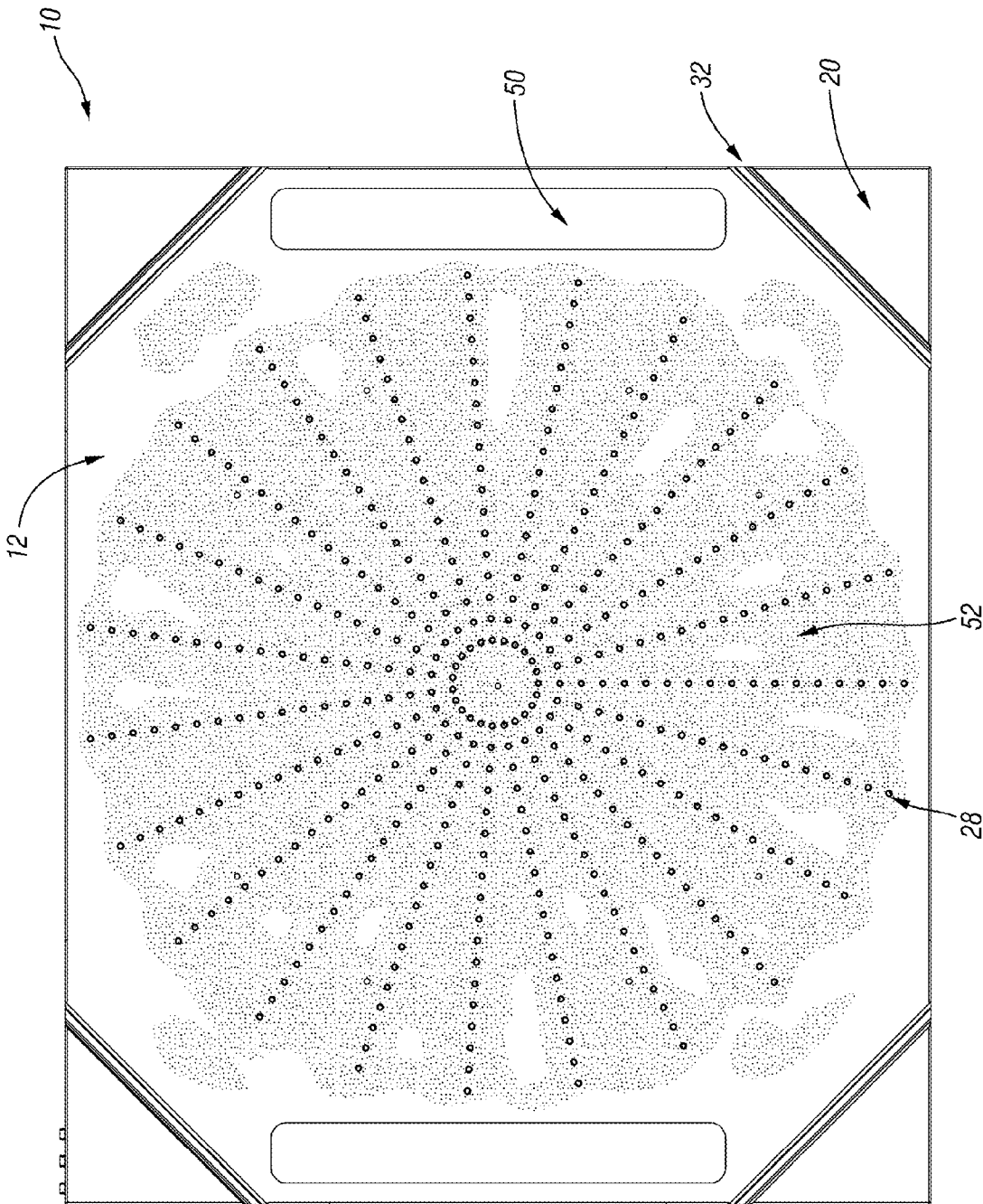


Fig. 8

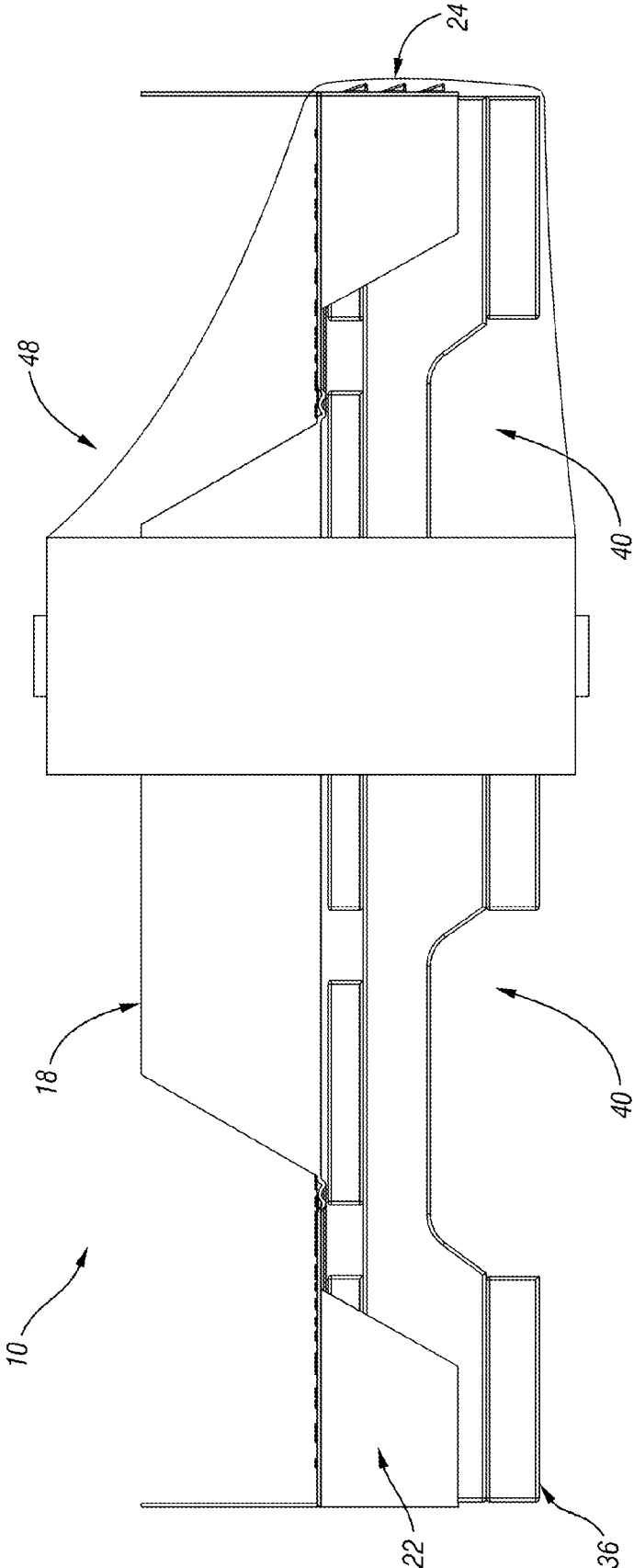


Fig. 9

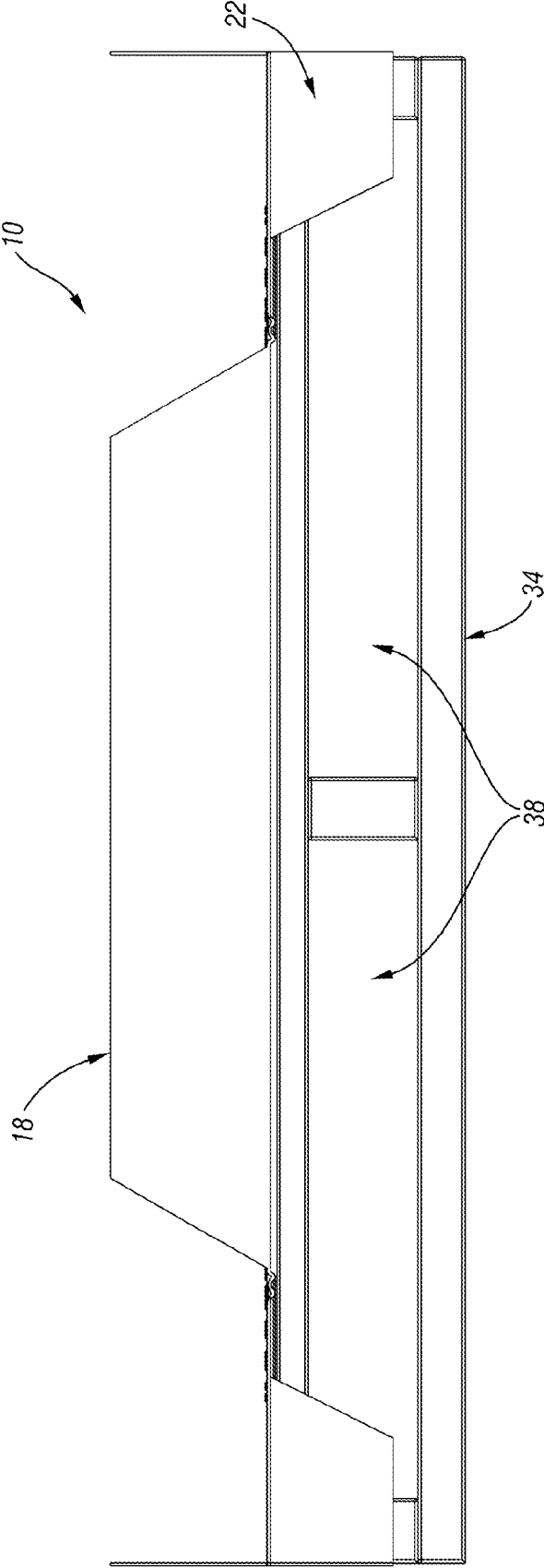


Fig. 10

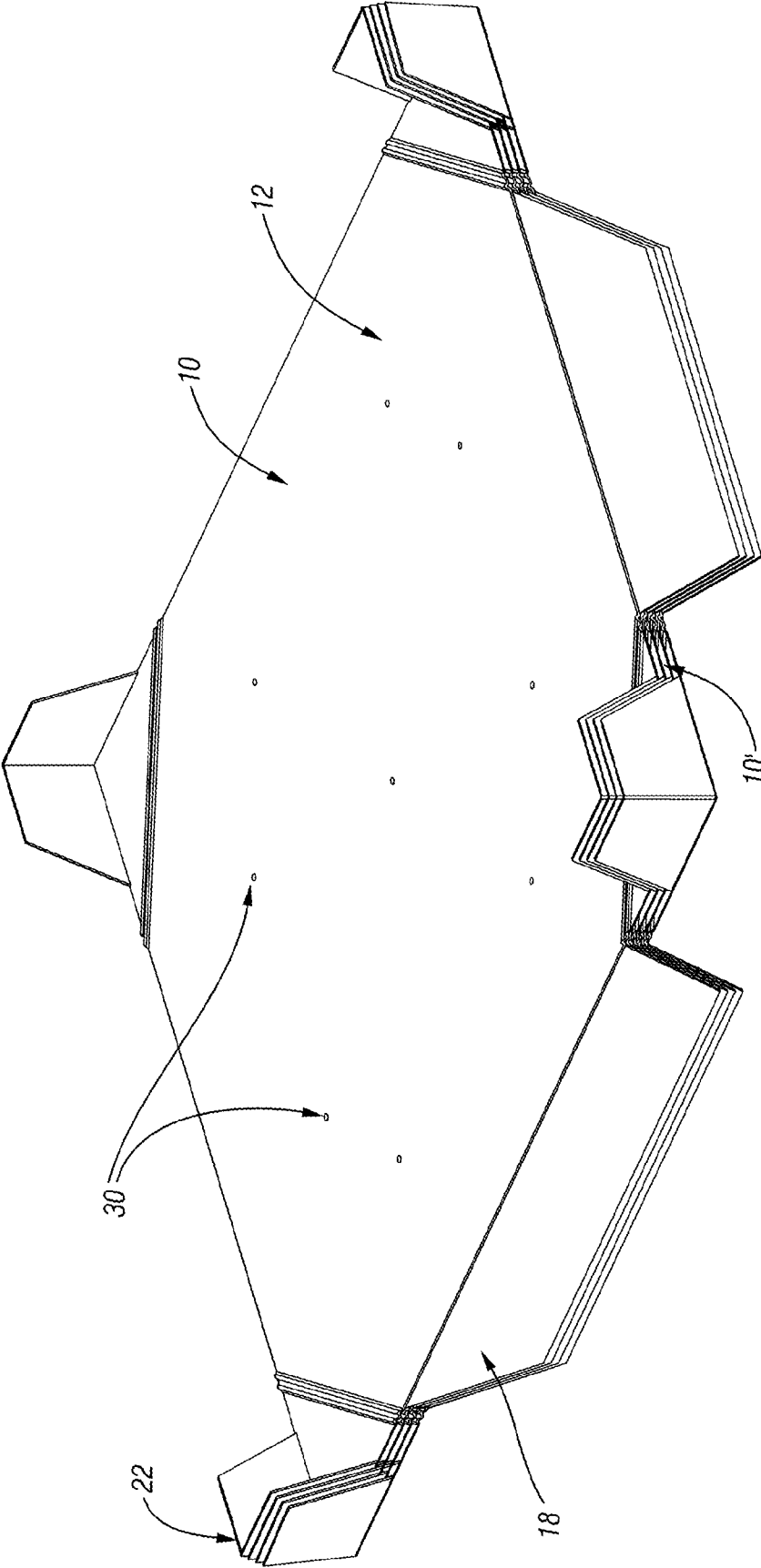


Fig. 11

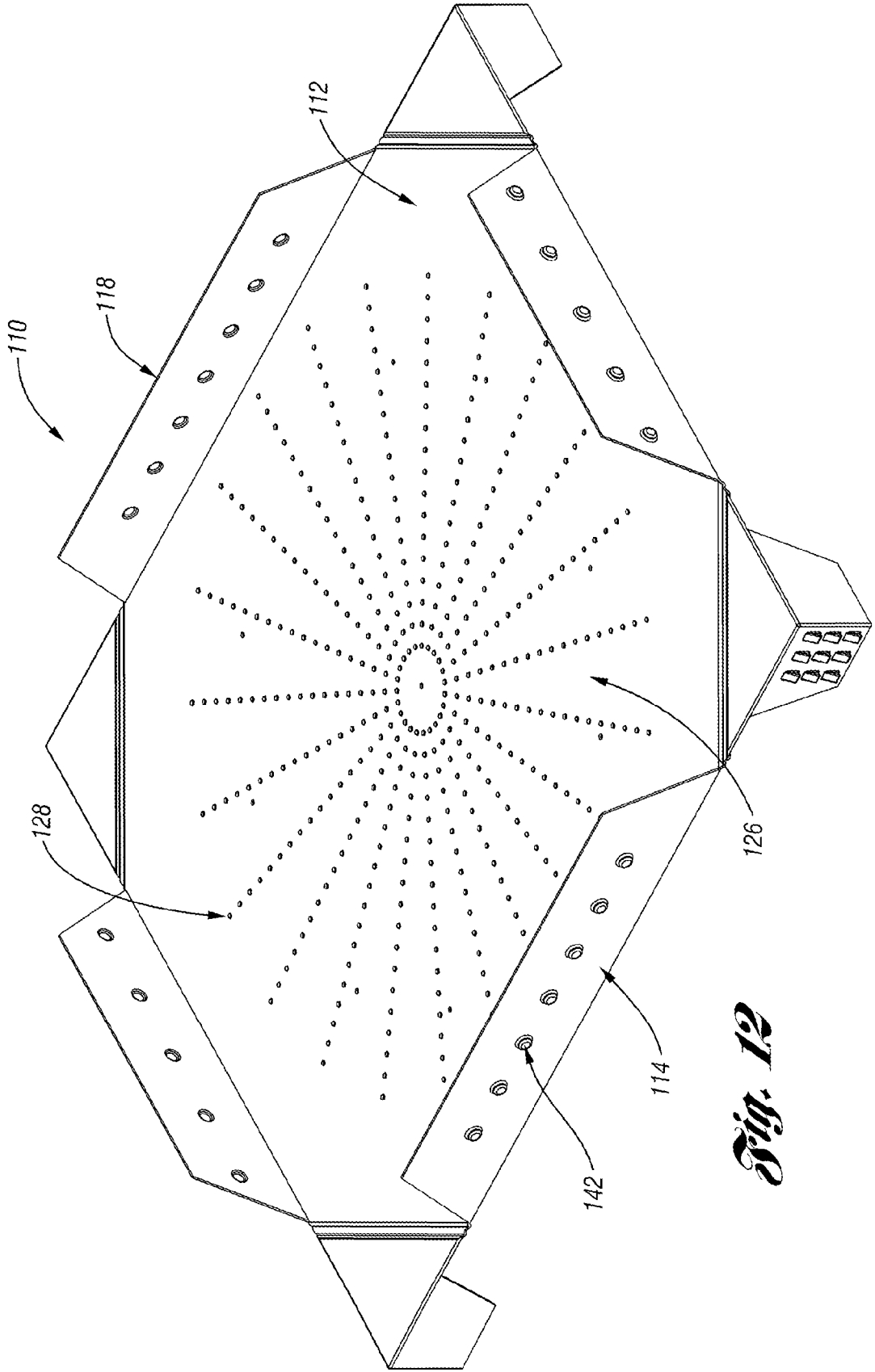


Fig. 12

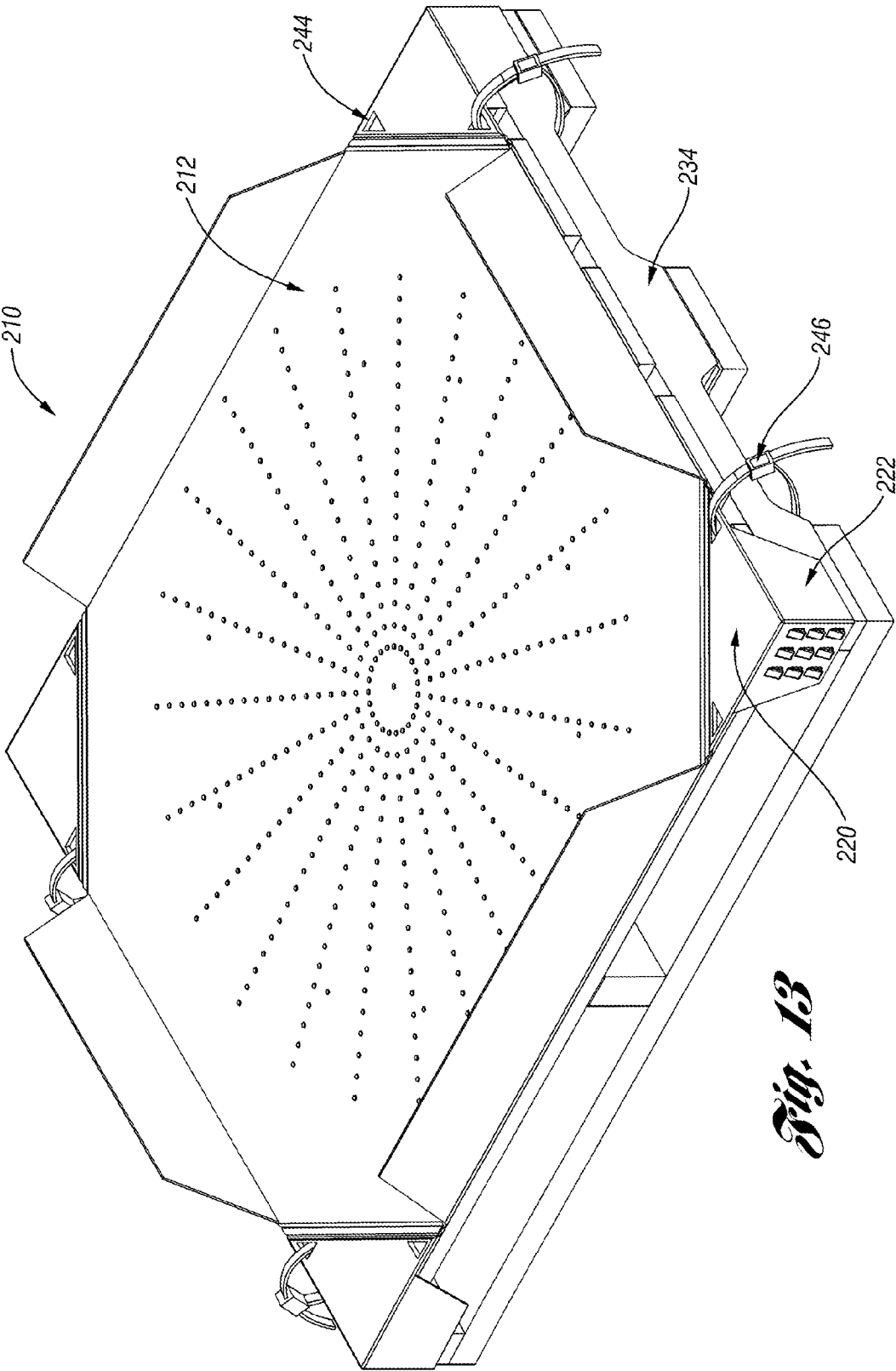


Fig. 13

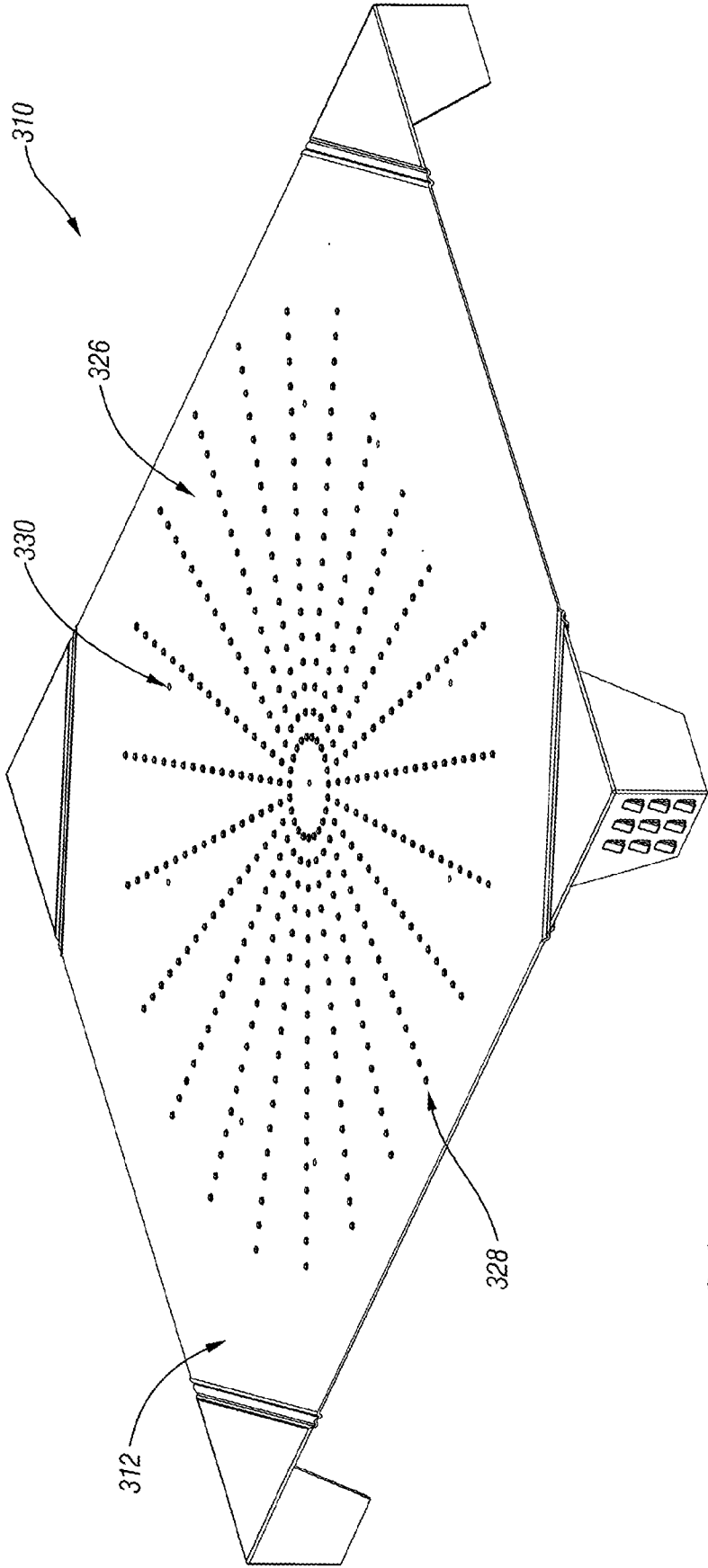


Fig. 14

PALLET COVER

BACKGROUND OF THE INVENTION

[0001] This invention relates to a pallet cover. Pallet covers are useful with wooden pallets. Pallet covers protect a load from splinters, nails, and other elements that can be on a pallet. Pallet covers also protect the pallet from the load. Plastic pallet covers are reusable and more durable than cardboard pallet covers.

[0002] Some pallet covers can be challenging to fit on wooden pallets. Wooden pallets have relatively large variations in dimension. The large variations in dimension can be due to manufacturing, moisture absorption, and damage by forklifts.

[0003] Other pallet covers protect a perimeter of the pallet and not a deck portion. However, this type of pallet cover can obstruct openings along the side of the wooden pallet which are used by a forklift or a pallet jack to engage and move the pallet.

SUMMARY OF THE INVENTION

[0004] A pallet cover according to the present invention includes a deck and a plurality of flanges extending upwardly from the deck. The flanges can prevent a load from shifting on a pallet. The flanges can also protect the load from equipment that may be used to move the pallet.

[0005] The pallet cover includes a plurality of protrusions that extend from a face on a leg. The plurality of protrusions allow stretch wrap, which is commonly used to cover a pallet during shipping, to be easily gripped.

[0006] The pallet cover includes a plurality of legs that extend downwardly from the deck to engage corners of the pallet. The pallet cover includes adjustable corner members that allow the pallet cover to fit pallets of varying sizes. The adjustable corner members function in an "accordion-like" manner. The adjustable corners allow the legs to extend outward to snugly fit a first pallet. When the pallet cover is removed from the first pallet, the adjustable corner members contract, and the legs return to their original positions. The pallet cover is then ready to use on a second pallet which could vary in size from the first pallet. This makes the pallet cover especially useful with wooden pallets, since they are known to have varying dimensions due to construction and environmental conditions.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Other advantages of the present invention can be understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

[0008] FIG. 1 is a perspective view of a pallet cover according to one embodiment of the present invention.

[0009] FIG. 2 is a bottom perspective view of the pallet cover.

[0010] FIG. 3 is a side view of the pallet cover.

[0011] FIG. 4 is a front view of the pallet cover.

[0012] FIG. 5 is an enlarged perspective view of one of the corners of the pallet cover more clearly showing the plurality of protrusions.

[0013] FIG. 6 is an enlarged perspective view of one of the corners of the pallet cover more clearly showing the adjustable corner member.

[0014] FIG. 7 is a perspective view of the pallet cover on a pallet.

[0015] FIG. 7a is an enlarged perspective view of one of the corners of the pallet cover on a similar pallet.

[0016] FIG. 8 is a top view of the pallet cover.

[0017] FIG. 9 is a side view of the pallet cover on a pallet.

[0018] FIG. 10 is a front view of the pallet cover on a pallet.

[0019] FIG. 11 is a bottom perspective view of the pallet cover in a nested position.

[0020] FIG. 12 is a perspective view of a pallet cover according to a second embodiment of the present invention.

[0021] FIG. 13 is a perspective view of a pallet cover according to a third embodiment of the present invention.

[0022] FIG. 14 is a perspective view of a pallet cover according to a fourth embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0023] A pallet cover 10 according to the present invention is shown in FIG. 1. The pallet cover 10 includes a deck 12. A plurality of flanges 18 extend upwardly from the deck 12 at deck edges 14. The plurality of flanges 18 extend along the deck edge 14 between adjustable corner members 32 and deck corner portions 20.

[0024] The deck 12 includes a textured top surface 26. The textured top surface 26 includes a plurality of small vertical protrusions, such as bosses 28 shown. The bosses 28 extend from the deck 12. The textured top surface can also be produced by applying an adhesive spray 52, a textured strip 50, or by including additives into the plastic material to increase its coefficient of friction. A plurality of drain holes 30 are located on the deck 12 and drain the pallet cover.

[0025] FIG. 2 is a bottom perspective view of the pallet cover 10. A plurality of legs 22 extend downwardly from the deck 12. Each leg 22 forms a pocket to receive a pallet corner.

[0026] FIG. 3 is a side view of the pallet cover 10. FIG. 4 is a front view of the pallet cover 10. The plurality of flanges 18 help in preventing a load from shifting on the deck 12. The plurality of flanges 18 protect the load from a fork lift or a pallet jack.

[0027] FIG. 5 is an enlarged perspective view of the pallet cover 10 showing a plurality of protrusions 24. The plurality of protrusions 24 extend from a face of the leg 22. The plurality of protrusions 24 engage a pallet wrapping material 48, such as plastic stretch wrap used to secure and cover the goods on the pallet. The plurality of protrusions 24 also prevent the pallet wrapping material 48 from separating from the pallet cover 10 and surrounding only the product.

[0028] FIG. 6 is an enlarged perspective view of the pallet cover 10 showing an adjustable corner member 32. The adjustable corner member 32 functions in an "accordion-like" manner to fit pallets 34 with varying dimensions. When a force is applied to the legs 22, the adjustable corner members 32 allow the legs 22 to extend. The legs 22 extend to mate with a corresponding pallet corner on a first pallet. The pallet cover can be removed from the first pallet and the legs 22 will return to their original positions. A force can then be reapplied to the legs 22 to extend them by means of the adjustable corner members 32 to fit a second pallet that varies in size from the first pallet. When the legs 22 are in an extended position, the adjustable corner members 32 exert a force on the legs 22 to return them toward their original position.

[0029] FIG. 7 is a perspective view of the pallet cover 10 on a pallet 34. The lower portion of the deck 12 engages the top

of the pallet deck 16. The pallet cover 10 allows for easy access to openings 38 and 40 on the front and side of the pallet 34. Openings 38 and 40 provide a way for a fork lift or pallet jack to engage the pallet 34.

[0030] The pallet cover 10 on the pallet 34 can be nested with a similar pallet cover 10' and similar pallet 34'. A base portion of the similar pallet 34' is received by the upper portion of the deck 12 of the pallet cover 10. The flanges 18 guide the base portion of the similar pallet 34' onto the deck 12.

[0031] The pallet cover 10 can also be nested with the similar pallet cover 10'. The lower portion of the deck 12' is received by the upper portion of the deck 12. The flanges 18 guide the similar pallet cover 10' onto upper portion of the deck 12. The flanges 18 and 18' and the legs 22 and 22' engage each other to maintain the pallet covers in a nested position.

[0032] FIG. 7a is an enlarged perspective view of the pallet cover 10 on a similar pallet 34'. The adjustable corner members 32 extended to fit around a similar pallet 34'. The similar pallet 34' is slightly larger than the pallet 34. FIG. 7a is for illustrative purposes only and is not a limitation on the disclosed embodiments.

[0033] FIG. 8 is a top view of the pallet cover 10. The textured top surface 26 on the deck 12 prevents the load from shifting during transport. Of course, other patterns and textures could be used. The textured top surface may also include the textured strips 50 or the adhesive spray 52.

[0034] FIG. 9 is a side view of the pallet cover 10 on the pallet 34. The plurality of protrusions 24 engage the pallet wrapping material 48. FIG. 10 is a front view of the pallet cover 10 on the pallet 34. The location of the legs 22 allow access to the pallet openings 38 and 40.

[0035] FIG. 11 is a bottom perspective of the pallet cover 10 in a nested position. The pallet cover 10 can be nested with the similar pallet cover 10'. The upper portion of the deck 12 on the pallet cover 10 receives the lower portion of the deck 12' of the similar pallet cover 10'. The flanges 18 guide the deck 12' onto the deck 12.

[0036] FIG. 12 is a perspective view of a pallet cover 110 according to a second embodiment of the present invention. The pallet cover 110 is generally the same as the pallet cover 10 described with respect to FIGS. 1-11 except as otherwise described below or shown in FIG. 12. A plurality of flanges 118 extend upwardly from a deck 112 at deck edges 114. The plurality of flanges 118 includes a plurality of small protrusions, such as bosses 142 shown. The bosses 142 also prevent the pallet wrapping material 48 from separating from the pallet cover 110 and surrounding only the product.

[0037] FIG. 13 is a perspective view of a pallet cover 210 according to a third embodiment of the present invention. The pallet cover 210 is generally the same as the pallet cover 10 described with respect to FIGS. 1-11 except as otherwise described below or shown in FIG. 13. The pallet cover 210 includes a deck 212. The deck 212 includes a plurality of deck openings 244. The plurality of deck openings 244 can be located in a deck corner portion 220, or in other suitable locations on the deck 212. A plurality of common zip ties 246 extend through the plurality of deck openings 244 and around a portion of a pallet 234 to securely attach the pallet cover 210 to the pallet 234. Although common zip ties 246 are shown in this embodiment, other attachment means that securely attach the pallet cover 210 to the pallet 234 would be considered within the scope of the invention.

[0038] FIG. 14 is a perspective view of a pallet cover 310 according to a fourth embodiment of the present invention. The pallet cover 310 is generally the same as the pallet cover 10 described with respect to FIGS. 1-11 except as otherwise described below or shown in FIG. 14. The pallet cover 310 includes a deck 312. The deck 312 includes a textured top surface 326. The textured top surface 326 includes a plurality of small vertical protrusions, such as bosses 328 shown. The bosses 328 extend from the deck 312. A plurality of drain holes 330 are located on the deck 312 and drain the pallet cover 310. However, the pallet cover 310 does not include the flanges 18 (FIG. 1) of the previous embodiments.

[0039] The pallet cover 10 may thermoformed such that the deck 12, legs 22 and flanges 18 are all integrally formed from a single sheet of plastic. Alternatively, the pallet cover 10 may be formed by some other suitable plastic forming process. Alternatively, the legs 22 and/or flanges 18 could be formed separately and attached to the deck 12.

[0040] While an embodiment of the invention has been illustrated and described, it is not intended that this embodiment illustrates and describes all possible forms of the invention. Rather, the words used in the specification are words of description rather than limitation, and it is understood that various changes may be made without departing from the spirit and scope of the invention.

We claim:

1. A pallet cover comprising:
 - a deck;
 - a plurality of vertically extending legs; and
 - a plurality of adjustable corner members connecting the legs to the deck.
2. The pallet cover as recited in claim 1, wherein a plurality of deck corner portions attach the vertically extending legs to the plurality of adjustable corner members.
3. The pallet cover as recited in claim 1, wherein the plurality of vertically extending legs engage a pallet.
4. The pallet cover as recited in claim 3, wherein the plurality of adjustable corner members provide a tension force to engage a plurality of vertically extending legs with a corresponding corner of a pallet.
5. The pallet cover as recited in claim 1, wherein the plurality of adjustable corner members allow the plurality of vertically extending legs to extend to fit a corresponding corner on a first pallet.
6. The pallet cover as recited in claim 5, wherein the plurality of vertically extending legs return to their original positions when removed from the first pallet and can extend again to fit a corresponding corner on a second pallet.
7. The pallet cover as recited in claim 6, wherein the second pallet varies in size from the first pallet.
8. The pallet cover as recited in claim 1, wherein the plurality of adjustable corner members allow the pallet cover to engage pallets having varying dimensions.
9. The pallet cover as recited in claim 1, wherein the plurality of vertically extending legs permit a tool having parallel extending arms to engage openings in the pallet.
10. The pallet cover as recited in claim 1, wherein the deck includes a plurality of deck openings.
11. The pallet cover as recited in claim 10, wherein an attachment means extends through at least one of the of plurality of deck openings; and
 - the attachment means surrounds a portion of a pallet to secure the pallet cover to the pallet.

12. The pallet cover as recited in claim 1, wherein the deck includes a textured top surface.

13. The pallet cover as recited in claim 12, wherein the textured top surface includes a plurality of vertically extending portions, an adhesive spray, or an adhesive strip.

14. A pallet assembly comprising:
a pallet including an upper surface;
a pallet cover including a deck;
the pallet cover located on the upper surface; and
the pallet cover including a plurality of flanges extending upwardly from a perimeter of the deck.

15. The pallet cover as recited in claim 14, wherein each of the plurality of flanges has a corresponding flange on an opposing side of the deck.

16. The pallet cover as recited in claim 14, wherein each of the plurality of flanges has a corresponding flange on an adjacent side of the deck.

17. The pallet cover as recited in claim 14, wherein the deck has a lower portion to engage a pallet and an upper portion to engage a load.

18. The pallet cover as recited in claim 14, wherein the plurality of vertical flanges extend along an edge of the deck from a first adjustable corner member to a second adjustable corner member.

19. The pallet cover as recited in claim 14, wherein the plurality of vertical flanges include a plurality of bosses.

20. The pallet cover as recited in claim 19, wherein the plurality of bosses engage a pallet wrapping material.

21. The pallet cover as recited in claim 14, wherein the deck contains a plurality of drain holes.

22. A pallet cover comprising:
a deck;
a plurality of protrusions; and
a plurality of vertically extending legs, wherein at least one face of the plurality of vertically extending legs include the plurality of protrusions.

23. The pallet cover as recited in claim 20, wherein the plurality of protrusions engage a pallet wrapping material.

24. A method for attaching a pallet cover to a pallet comprising:

selectively mating a vertically extending leg with a corresponding corner of a pallet.

25. The method as recited in claim 25, further controlling an amount of deflection of the vertically extending leg by applying a force to the vertically extending leg.

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