

US00D467499S

# (12) United States Design Patent (10) Patent No.:

Garza et al.

### (10) Patent No.: (45) Date of Patent:

US D467,499 S

\*\* Dec. 24, 2002

## (54) HINGE FOR A RECLOSABLE CLAMSHELL CONTAINER

(75) Inventors: **Dean Garza**, Williamston, MI (US); **Ryan Gingras**, Grass Lake, MI (US)

(73) Assignee: Dart Container Corporation, Mason,

MI (US)

(\*\*) Term: 14 Years

(21) Appl. No.: 29/153,786

(22) Filed: Jan. 10, 2002

D9/434, 499; 220/4.23, 4.25, 827, 839; D8/323, 325, 328

### (56) References Cited

#### U.S. PATENT DOCUMENTS

3,511,433 A	* 5/1970	Andrews et al 220/4.23
D218,155 S	* 7/1970	Britt D9/426
3,900,550 A	8/1975	Oliver et al.
D269,854 S	* 7/1983	Commisso
4,403,712 A	9/1983	Wiesinger
4,703,853 A	11/1987	Byrns
4,901,884 A	2/1990	Kallenbach
5,046,659 A	9/1991	Warburton
5,115,931 A	5/1992	Dubach
5,131,551 A	7/1992	Wells
5,242,696 A	9/1993	McDevitt
5,269,430 A	* 12/1993	Schlauptitz et al 220/4.23
5,405,009 A	4/1995	Hackenbracht
5,437,383 A	8/1995	Stull
5,577,627 A	11/1996	Richie-Dubler
Ď419,870 S	* 2/2000	Albright et al D9/425

<sup>\*</sup> cited by examiner

Primary Examiner—Dominic Simone

(74) Attorney, Agent, or Firm—McGarry Bair LLP

#### (57) CLAIM

The design for a hinge for a reclosable clamshell container, as shown and described.

## DESCRIPTION

FIG. 1 is a top perspective view of a first embodiment of a design for a hinge according to the invention shown in the preferred environment of connecting a top and a bottom of

a clamshell container (shown in phantom), with the hinge design comprising a fold line in combination with a pair of truncated fusiform protrusions.

FIG. 2 is a bottom perspective view of the first embodiment of the design for a hinge shown in FIG. 1.

FIG. 3 is an enlarged top plan view of the first embodiment design for a hinge as shown in FIG. 1.

FIG. 4 is an enlarged bottom plan view of the first embodiment design for a hinge as shown in FIG. 2.

FIG. 5 is a side elevational view of the first embodiment design for a hinge. The left and right sides are identical. Therefore only one side view is shown.

FIG. 6 is a front elevational view of the first embodiment design for the hinge taken along line 6—6 of FIG. 5.

FIG. 7 is a top perspective view of a second embodiment of the hinge according to the invention. The second embodiment is identical to the first embodiment except there are three truncated fusiform projections positioned coaxially with the fold line.

FIG. 8 is a bottom perspective view of the second embodiment of the design for a hinge according to the invention.

FIG. 9 is an enlarged top plan view of the second embodiment design for a hinge as shown in FIG. 7.

FIG. 10 is an enlarged bottom plan view of the second embodiment design for a hinge as shown in FIG. 8.

FIG. 11 is a side elevational view of the second embodiment design for a hinge. The left and right sides are identical. Therefore only one side view is shown.

FIG. 12 is a front elevational view of the second embodiment design for the hinge taken along line 12—12 of FIG. 11.

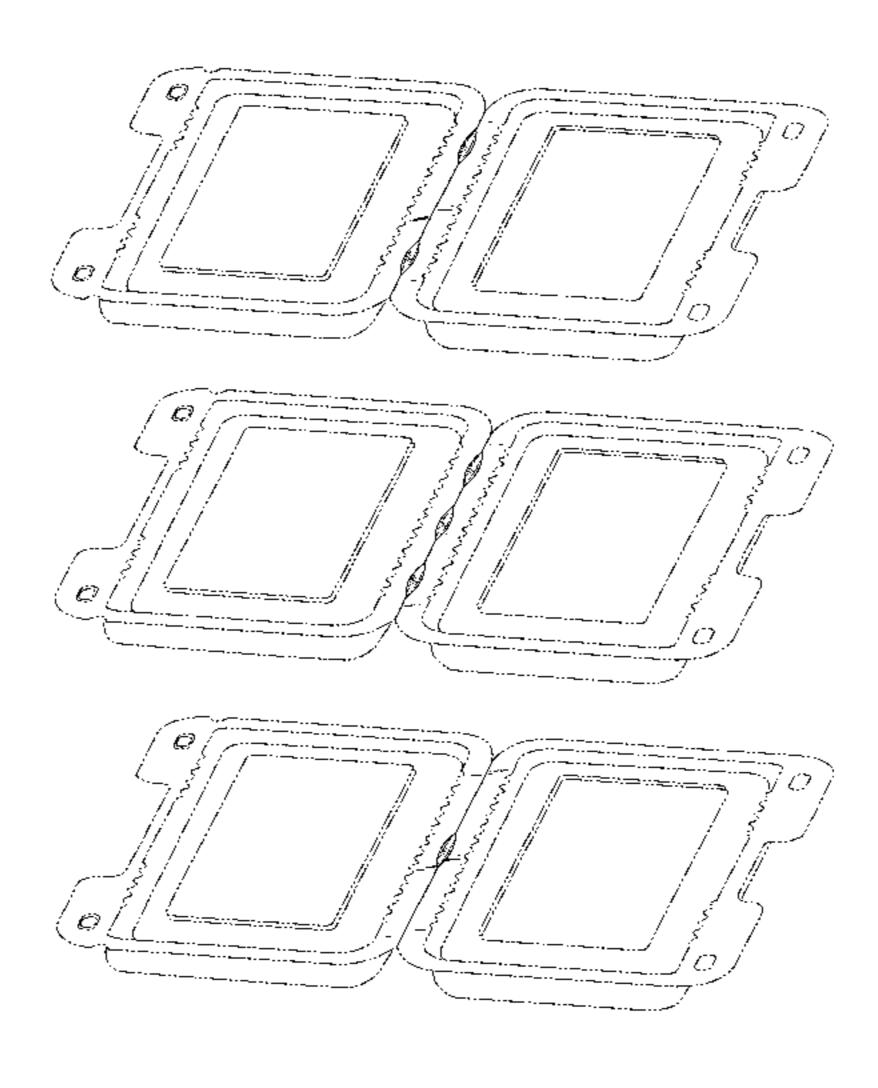
FIG. 13 is a top perspective view of a third embodiment of the hinge according to the invention. The third embodiment is identical to the first and second embodiments except there is only one truncated fusiform projection positioned coaxially with the fold line.

FIG. 14 is a bottom perspective view of the third embodiment of the design for a hinge according to the invention. FIG. 15 is an enlarged top plan view of the third embodiment design for a hinge as shown in FIG. 13.

FIG. 16 is an enlarged bottom plan view of the third embodiment design for a hinge as shown in FIG. 14.

FIG. 17 is a side elevational view of the third embodiment design for a hinge. The left and right sides are identical. Therefore only one side view is shown; and,

FIG. 18 is a front elevational view of the third embodiment design for the hinge taken along line 18—18 of FIG. 17.



## US D467,499 S

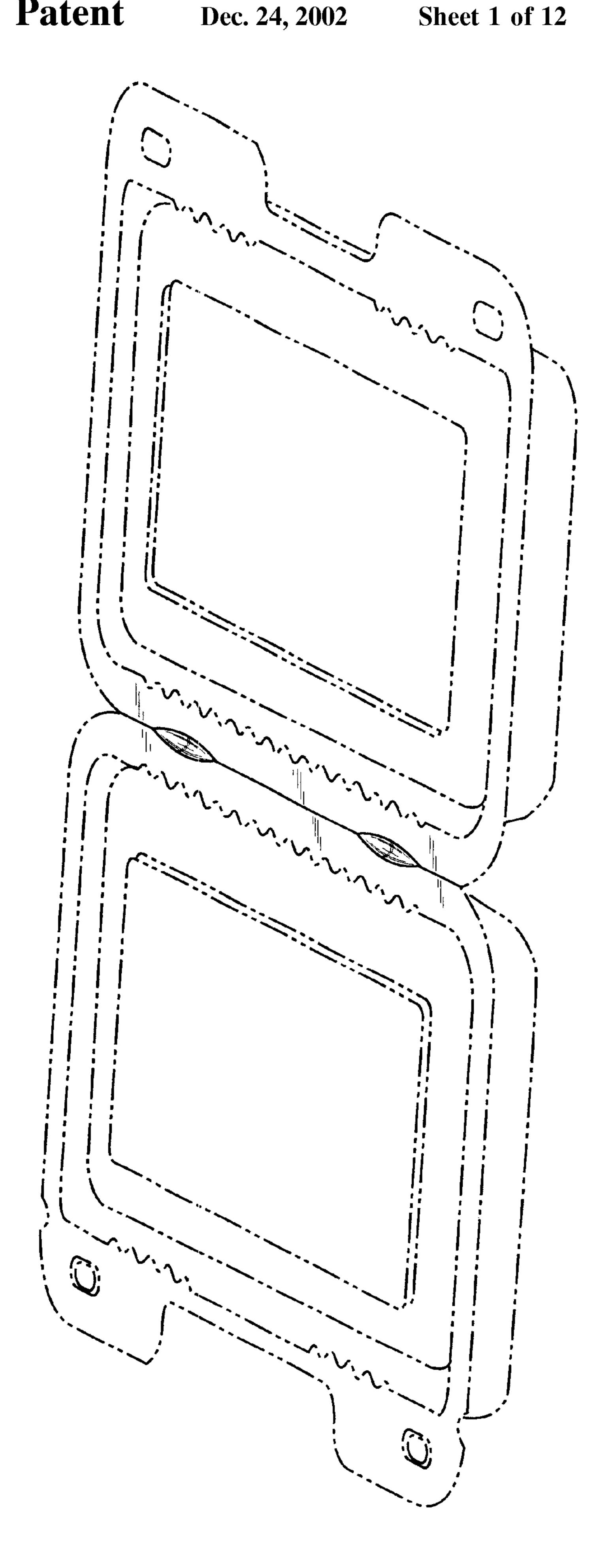
Page 2

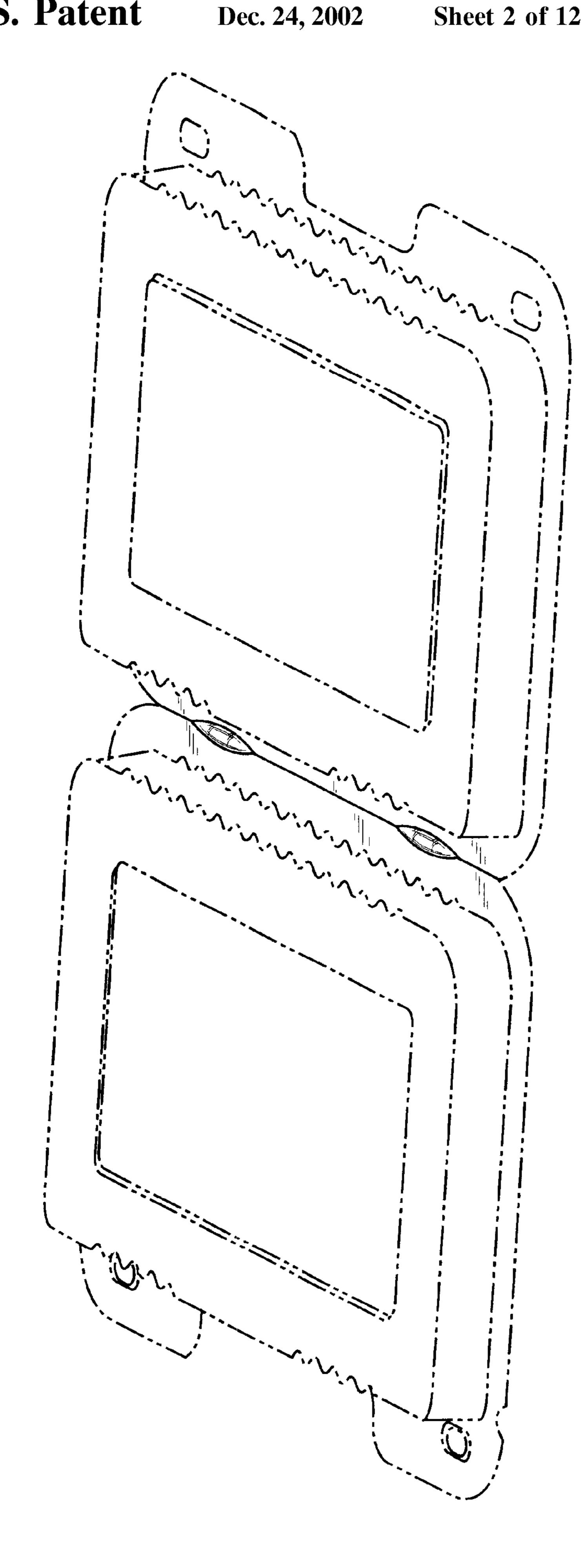
The design according to the invention can comprise one or more truncated fusiform protrusions in combination with the fold line. It is preferred, but not necessary, that the fold line be coaxial with a longitudinal axis of the truncated fusiform protrusions. The truncated fusiform protrusions have substantially continuously curved side walls and are preferably truncated ellipsoids.

The fold line can be made in any suitable manner and can comprise a continuous or discontinuous fold line. Preferably the fold line is made by creasing the material and/or perforating portions of the material along the fold line.

Any number of truncated fusiform protrusions can be arranged in any desired spatial relationship or location along the fold line. The preferred configuration comprises evenly spacing the truncated fusiform protrusions along the fold line. The truncated fusiform protrusions are also preferably symmetrically located relative to the midpoint of the fold line.

1 Claim, 12 Drawing Sheets





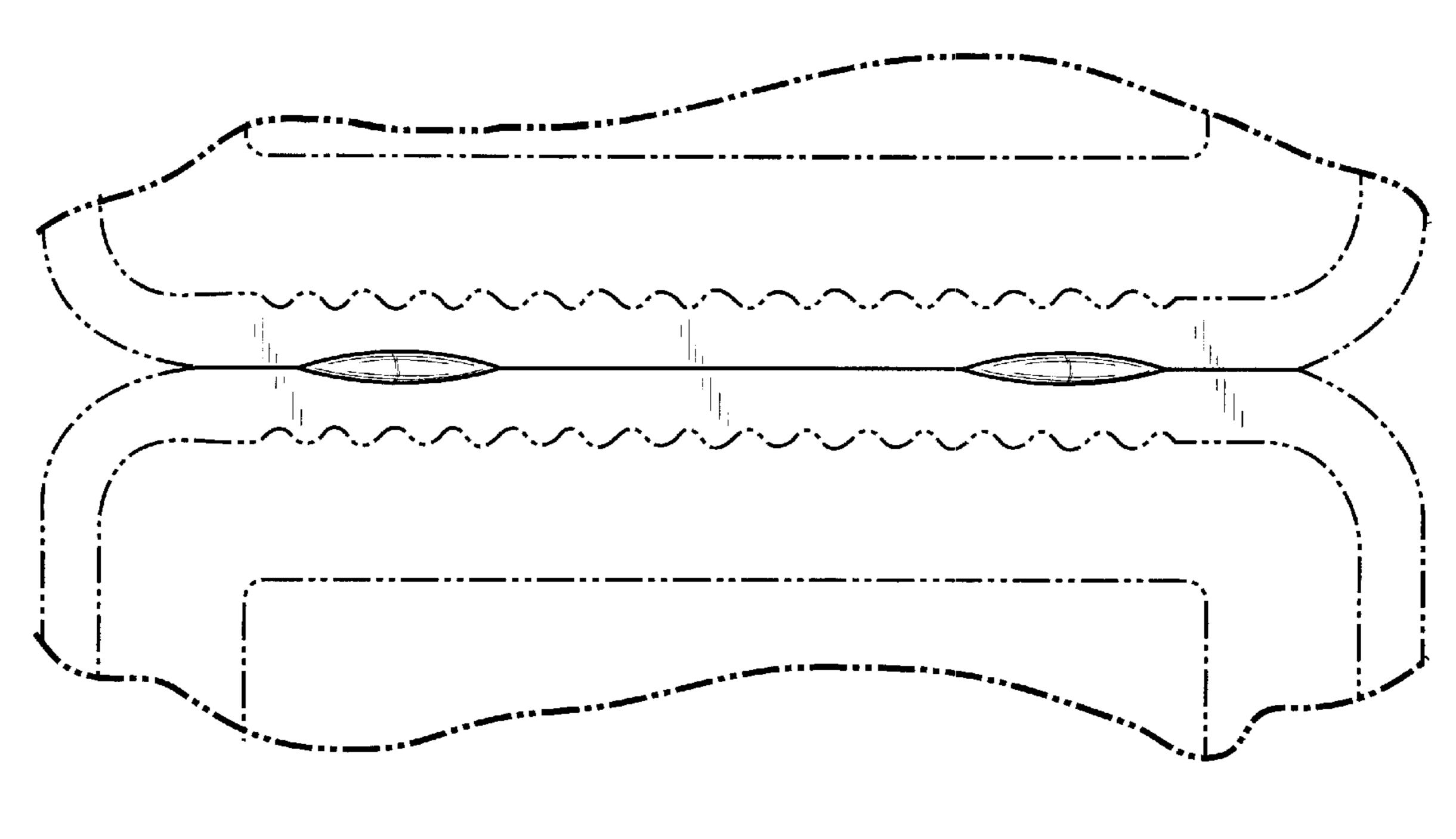


Fig. 3

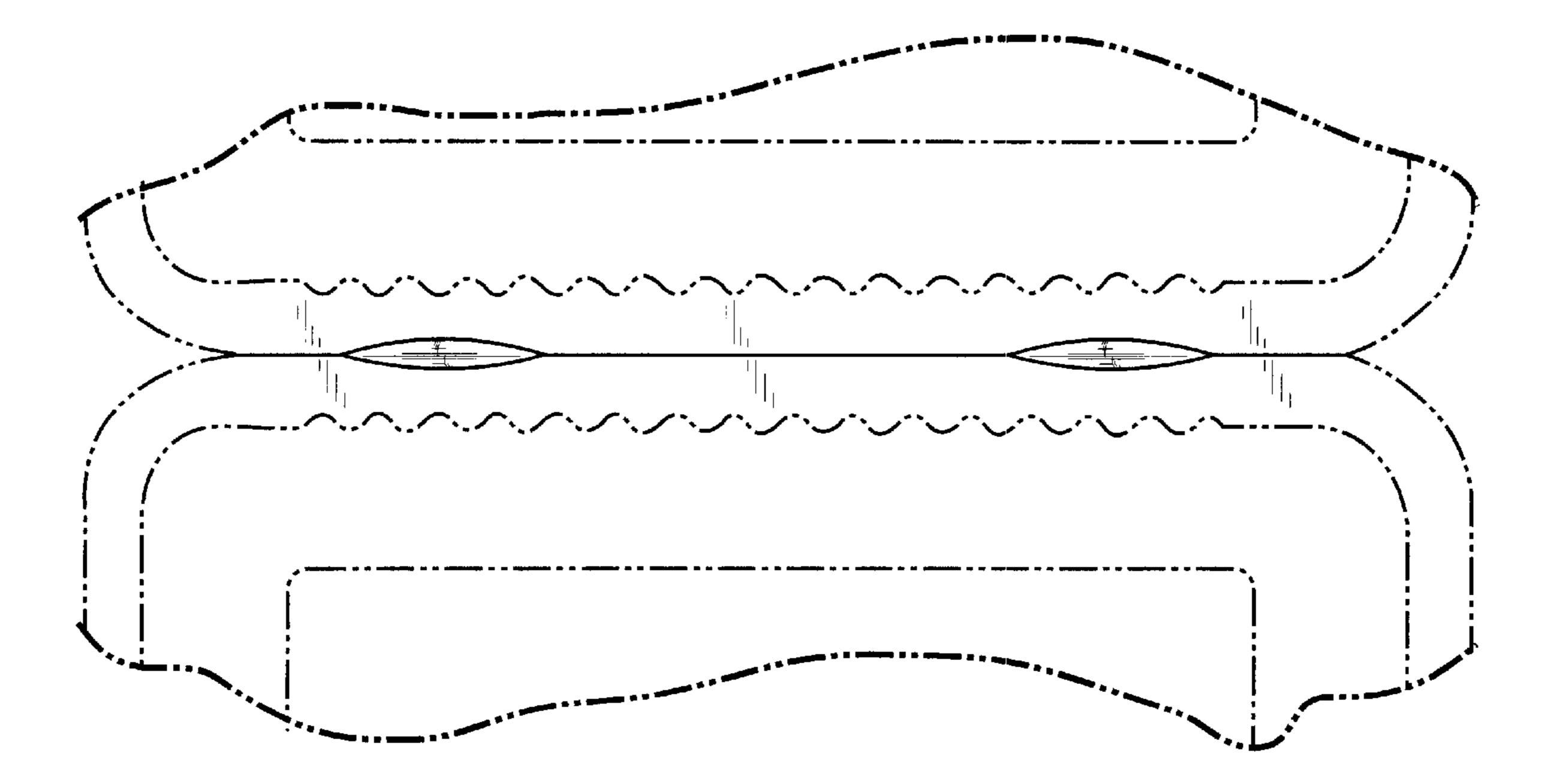


Fig. 4

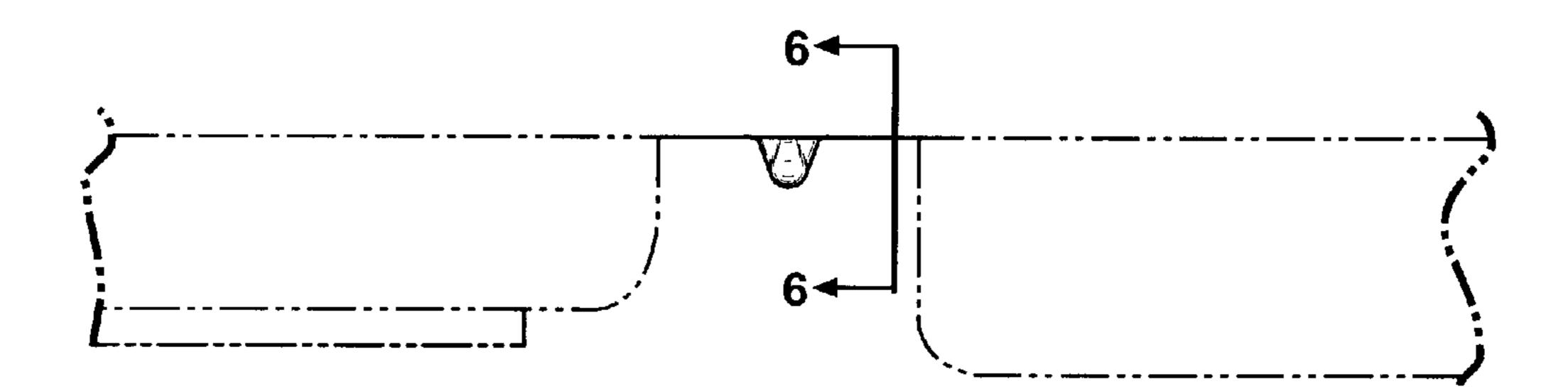


Fig. 5

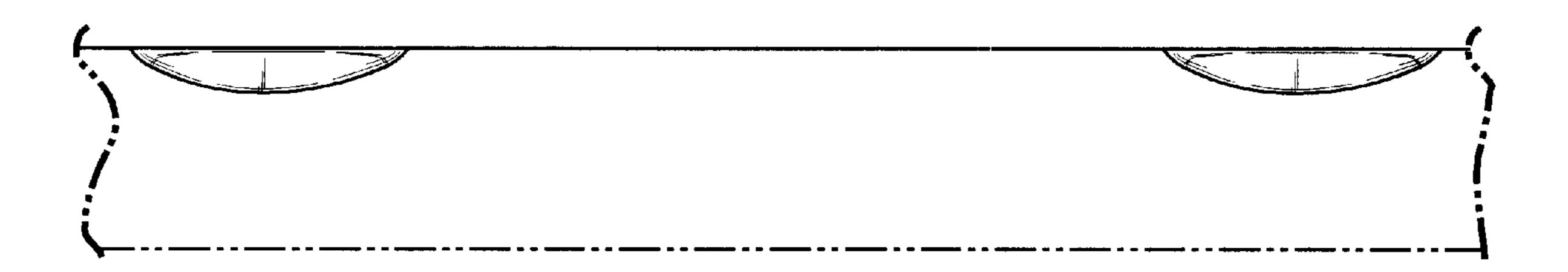
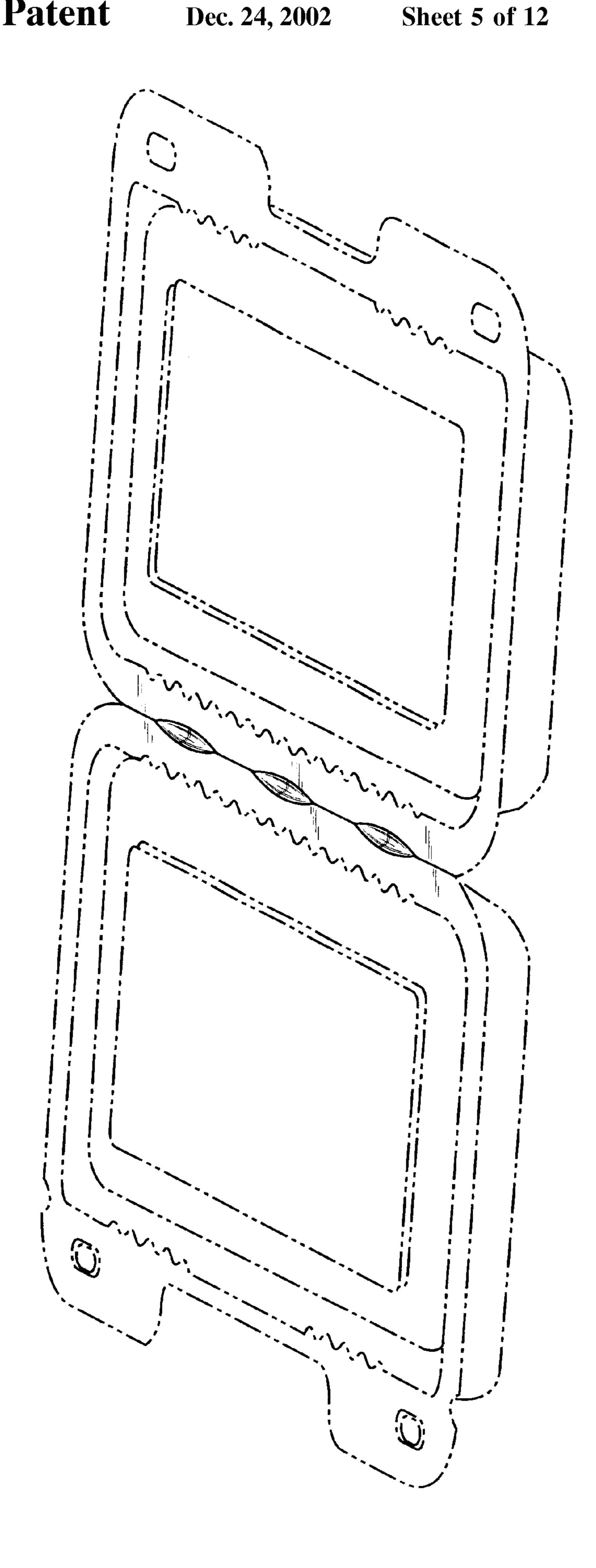
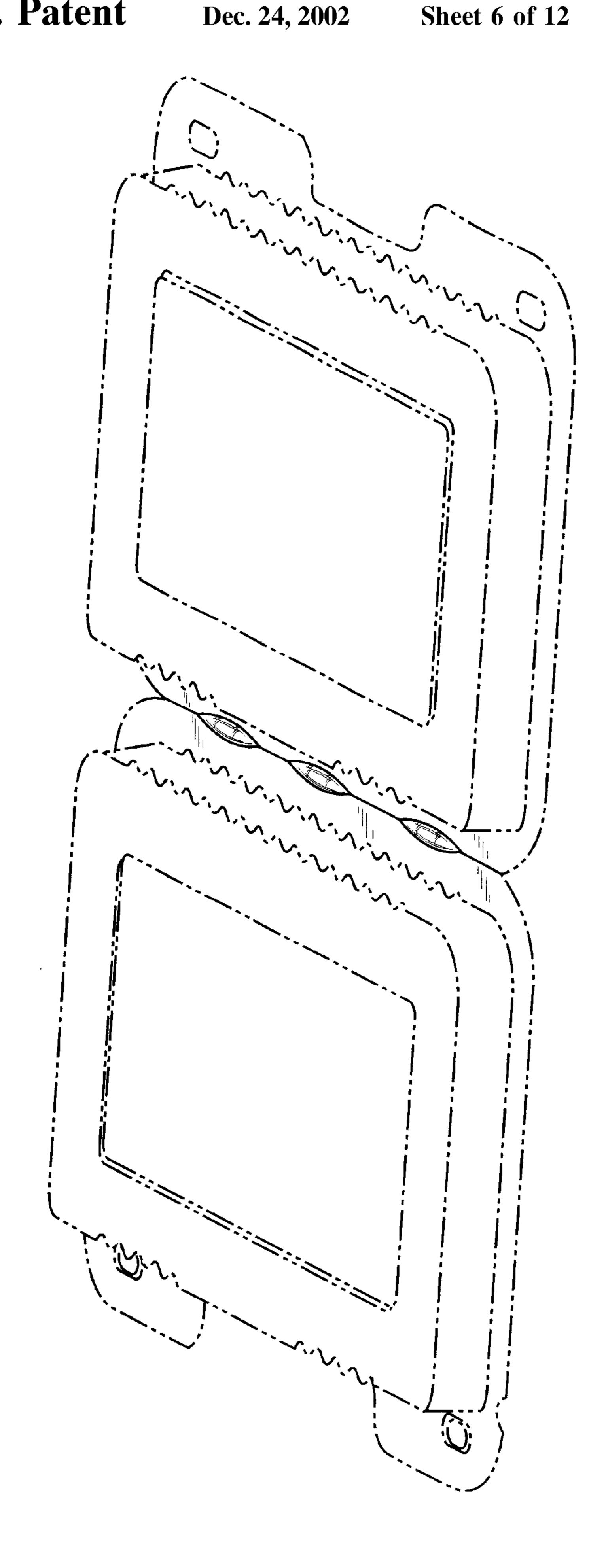
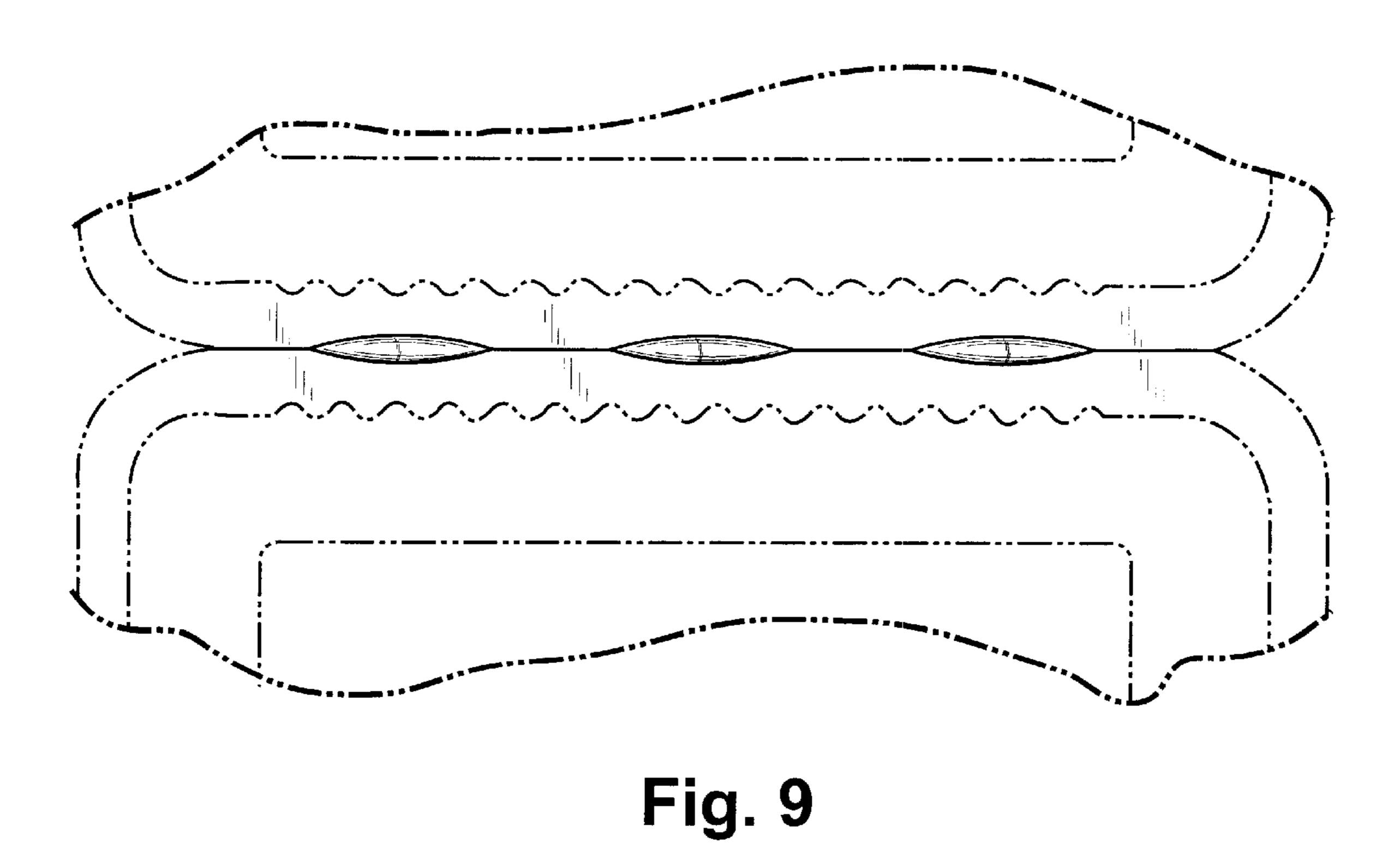


Fig. 6







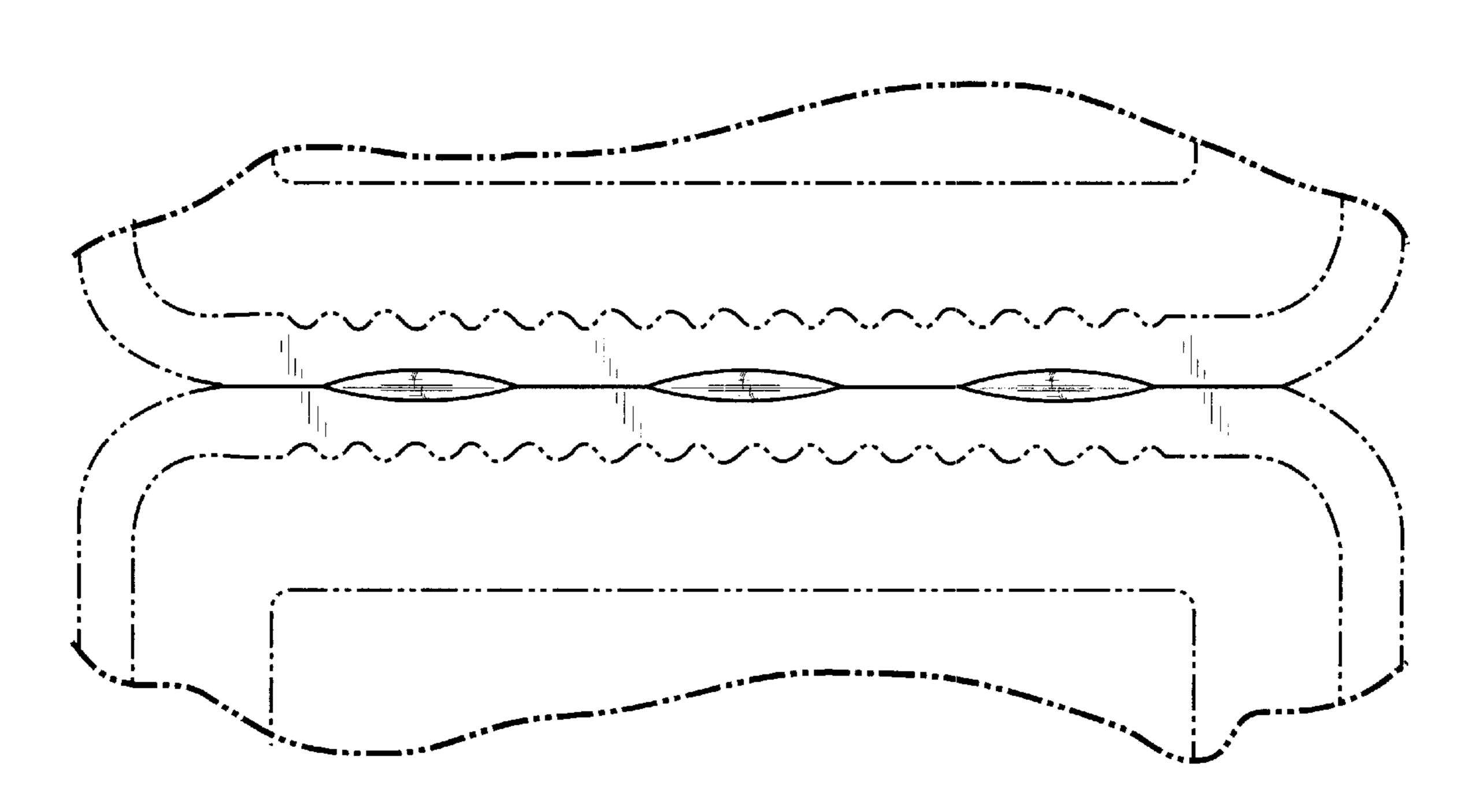


Fig. 10

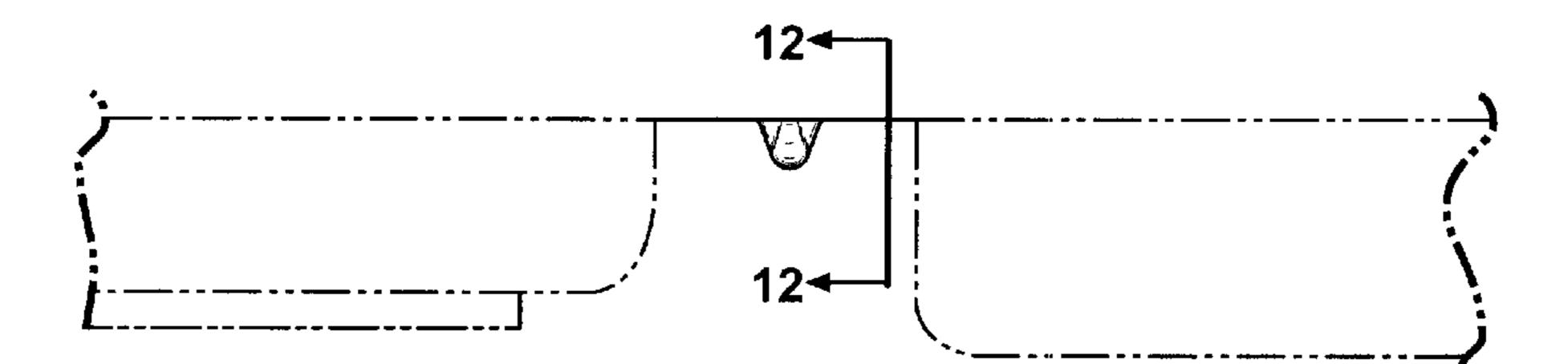


Fig. 11

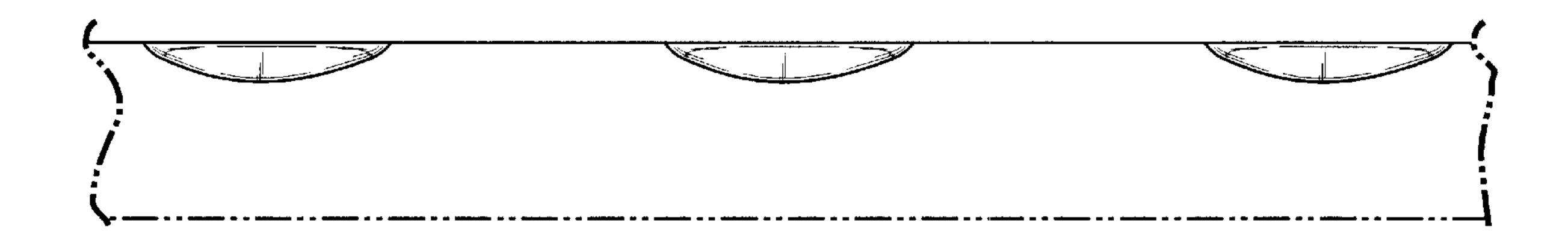
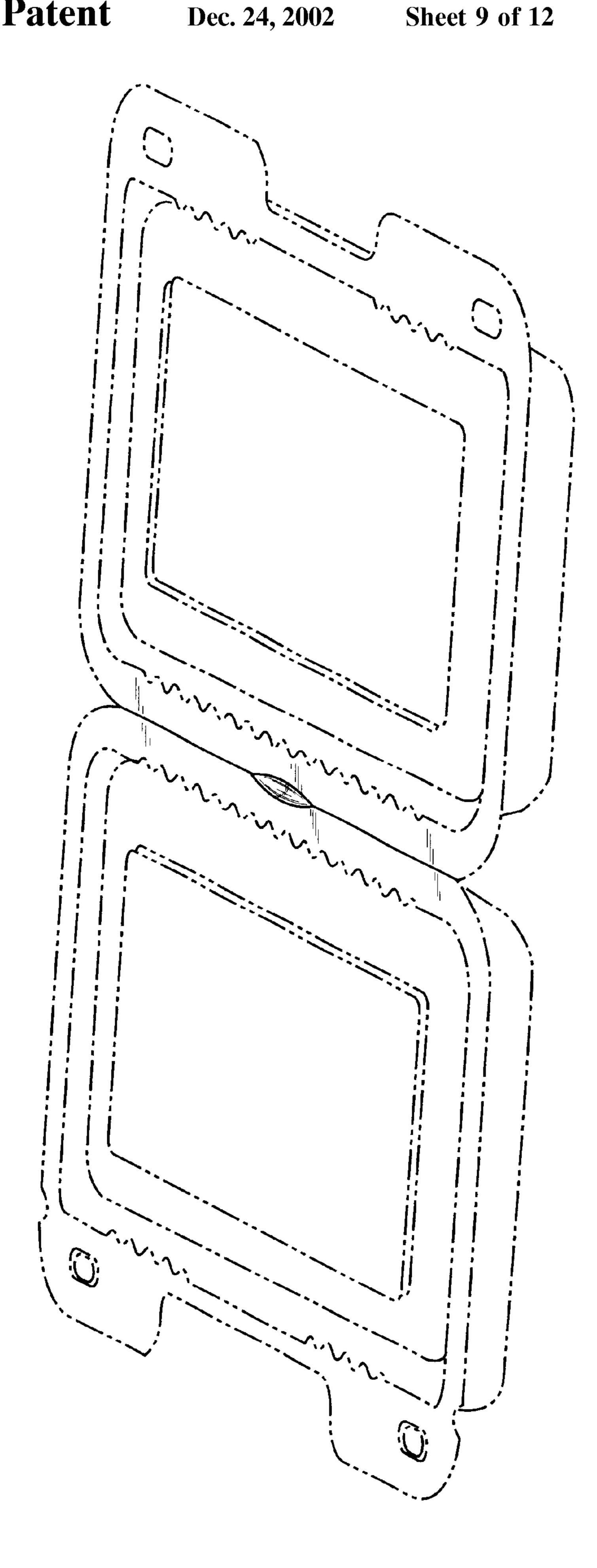
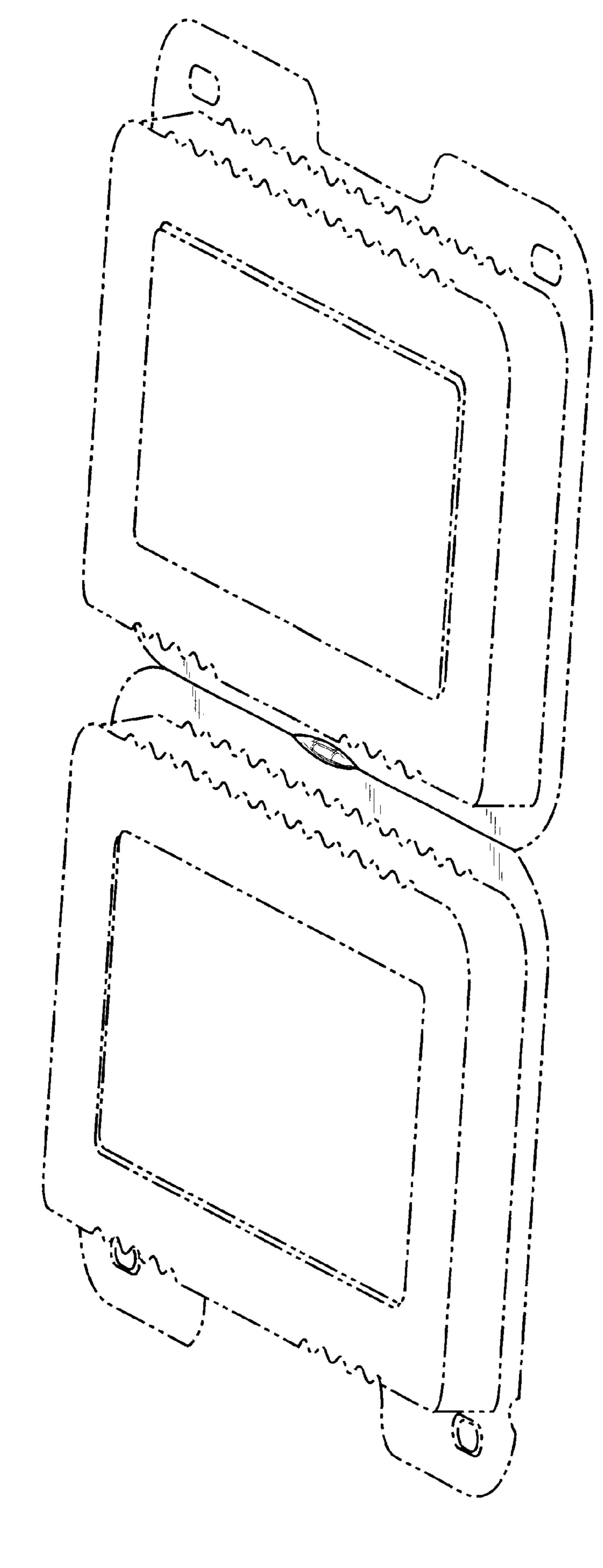


Fig. 12





Dec. 24, 2002

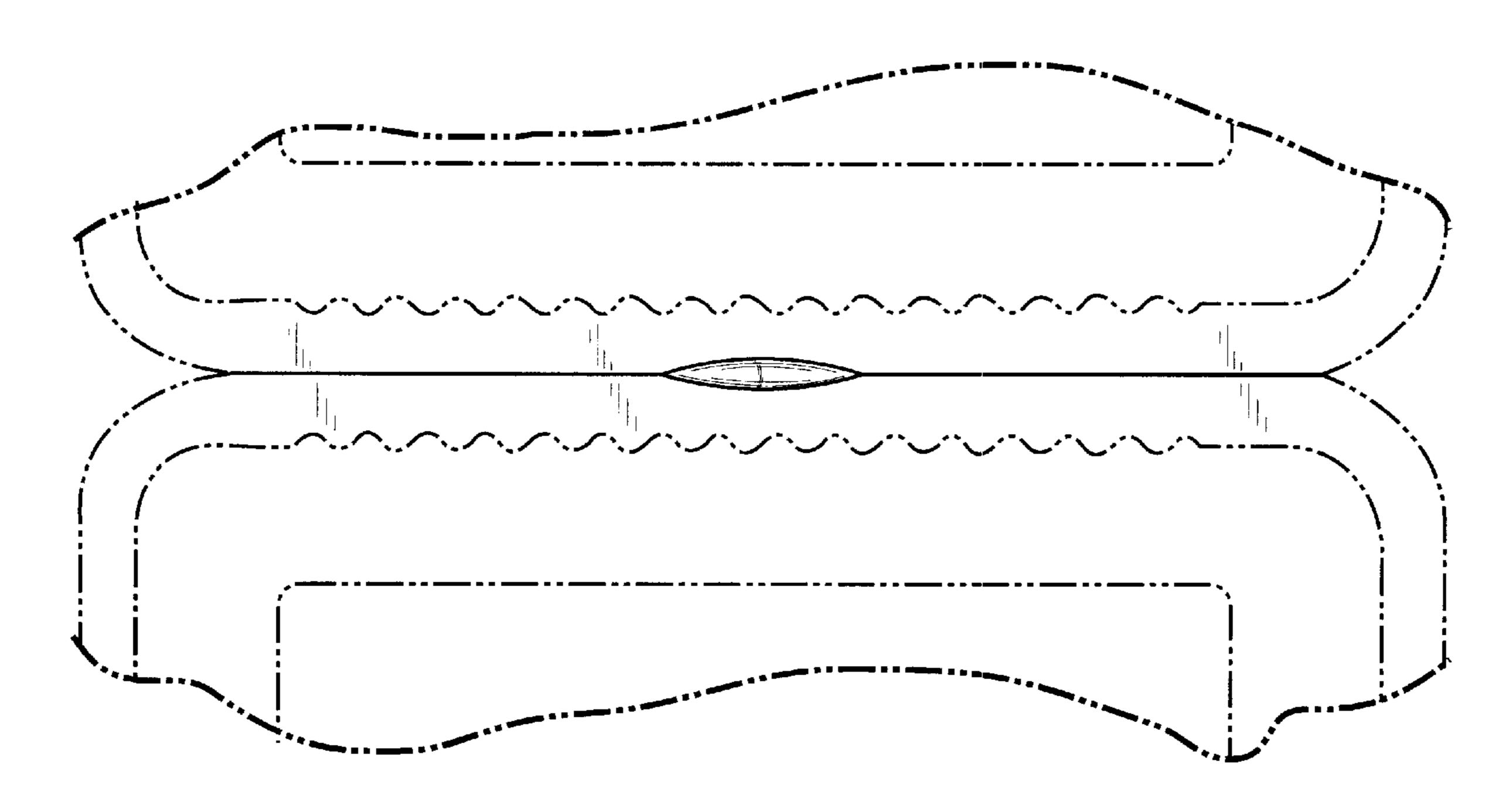


Fig. 15

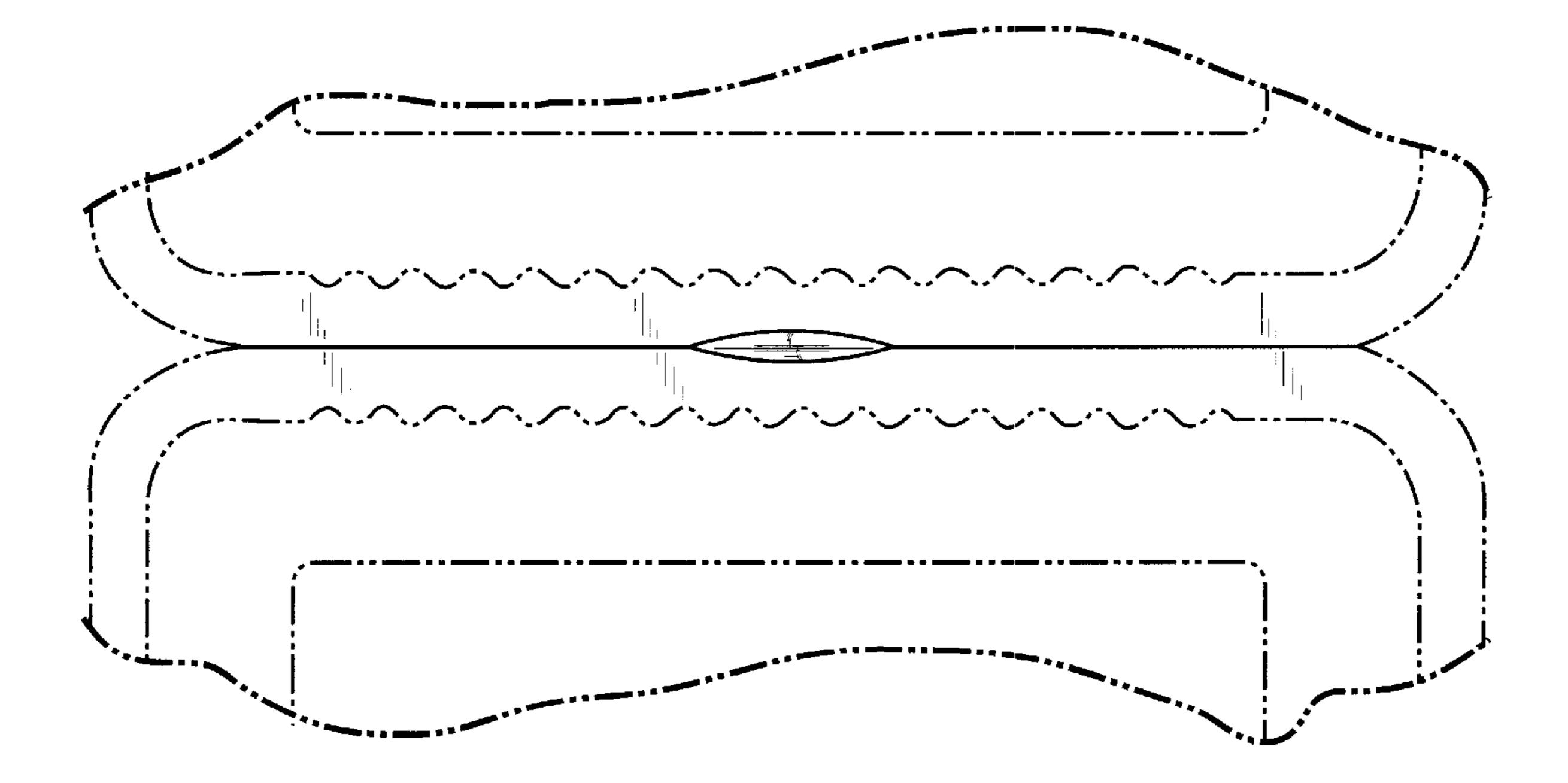


Fig. 16

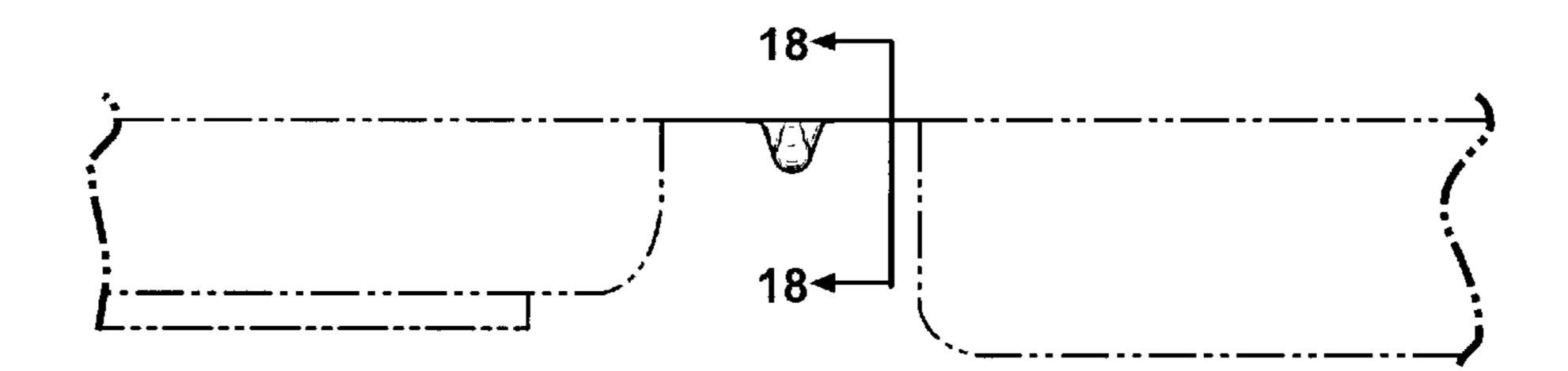


Fig. 17

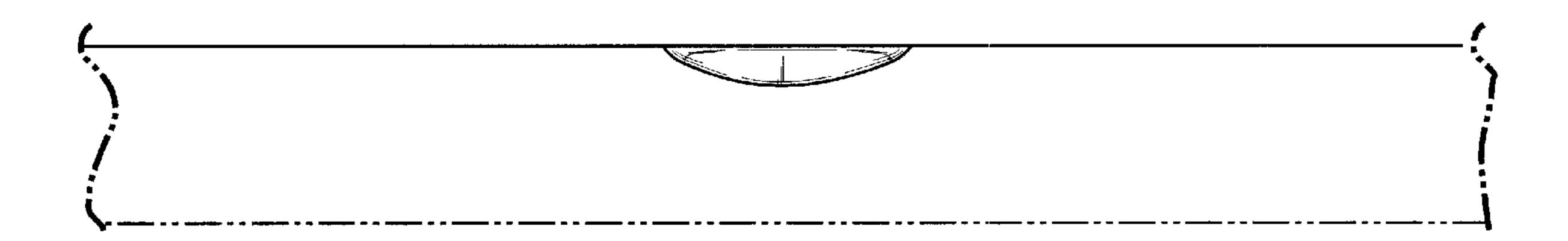


Fig. 18