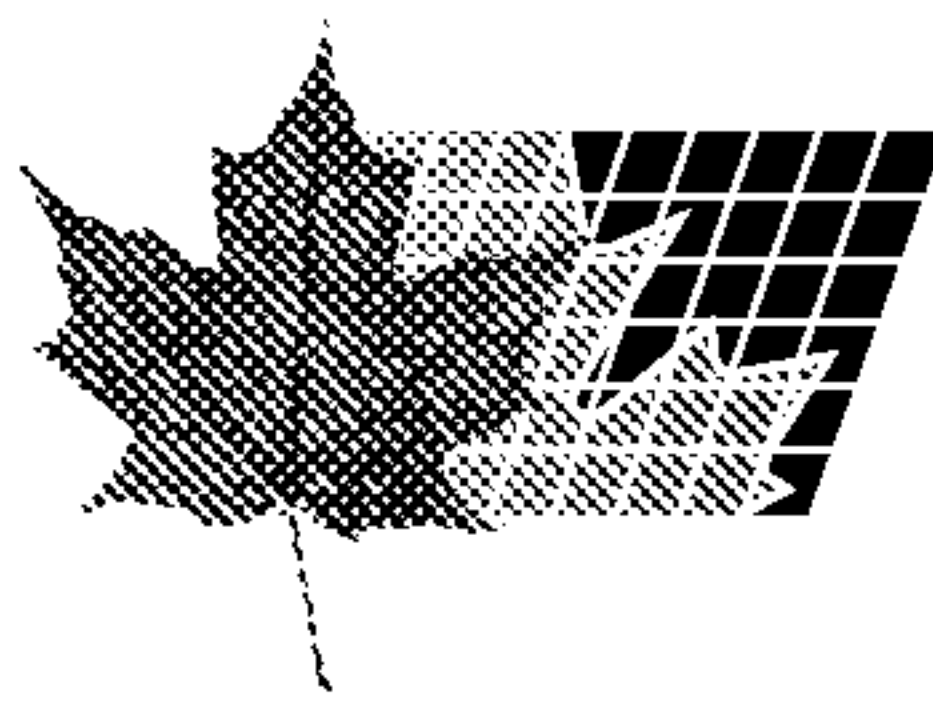




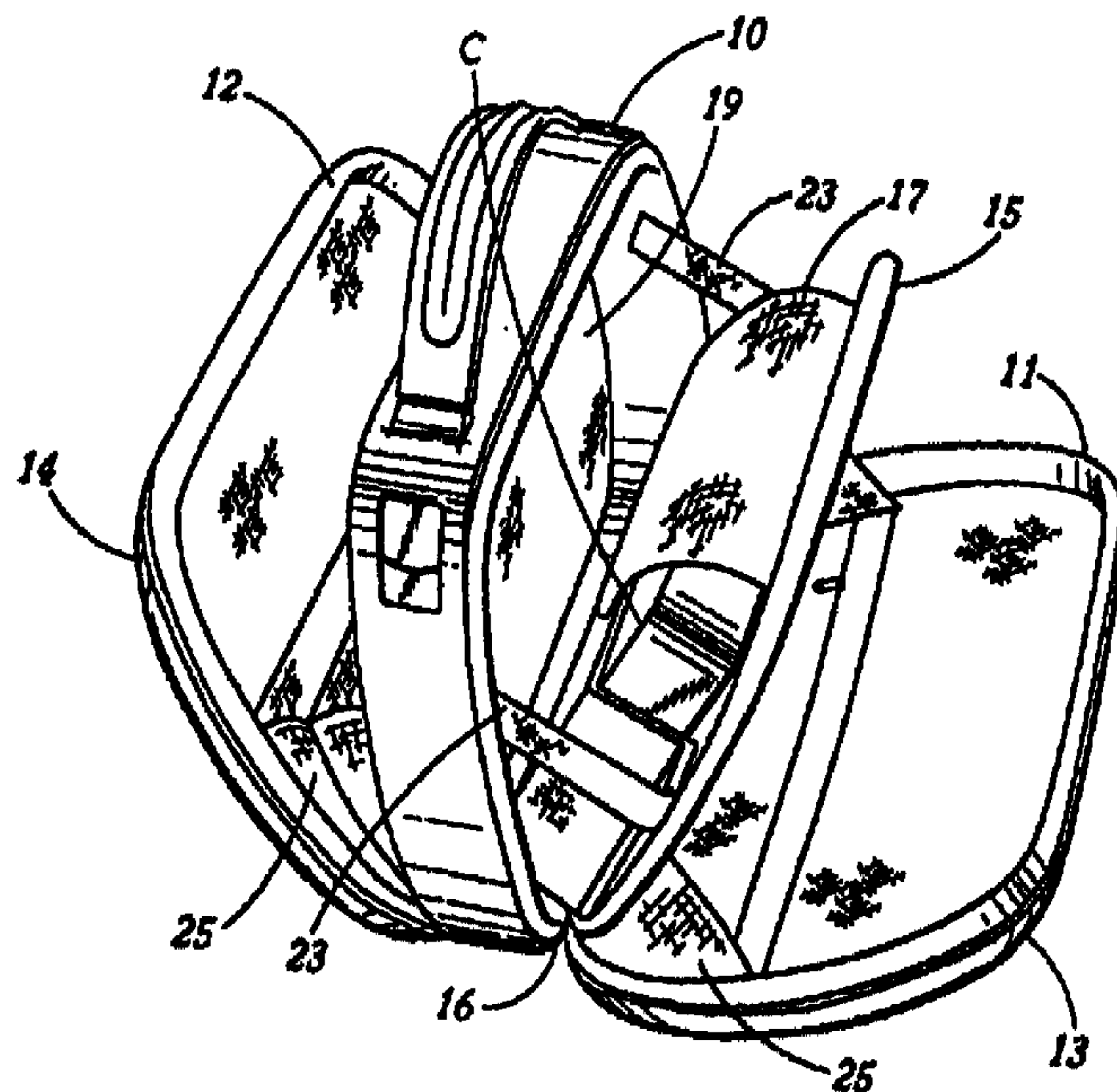
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(51) Int.Cl.⁷ B65D 85/00

(30) 1998/07/28 (60/094,430) US

(54) **VALISE D'ORDINATEUR MUNIE D'UN CADRE RIGIDE ET
POUVANT ETRE OUVERTE PAR LE HAUT OU PAR LE BAS**
(54) **COMPUTER CARRYING CASE WITH RIGID FRAME AND
ACCESS FROM THE TOP AND THE BOTTOM**



(57) La présente invention concerne une valise d'ordinateur constituée d'un cadre périphérique moulé (10) et de rabats (11, 12). Chaque rabat comprend des coques molles moulées (13, 14) protubérant à l'extérieur du cadre pour délimiter une valise d'ordinateur présentant trois compartiments. Un panneau (15) ménagé entre un premier et un deuxième compartiments comprend un fourreau (17) pouvant recevoir et suspendre un ordinateur portatif (C) et l'isoler à l'intérieur du cadre.

(57) The present invention relates to computer carrying cases comprising a molded peripheral frame (10) and access doors (11, 12). Each of the access doors comprise soft molded shells (13, 14) that protrudes outside the frame to define a computer carrying case with three compartments. Between a first and second compartment there is located a panel (15) having a sleeve (17) to receive and suspend a laptop computer (C) away from the interior of the frame.

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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B65D 85/00	A1	(11) International Publication Number: WO 00/06467 (43) International Publication Date: 10 February 2000 (10.02.00)
(21) International Application Number: PCT/US99/16930 (22) International Filing Date: 26 July 1999 (26.07.99) (30) Priority Data: 60/094,430 28 July 1998 (28.07.98) US (71) Applicant (for all designated States except US): SAMSONITE CORPORATION [US/US]; 11200 East forty-fifth Avenue, Denver, CO 80239 (US). (72) Inventor; and (75) Inventor/Applicant (for US only): SIJMONS, Erik [BE/BE]; Tuinwijk 30, B-9700 Oudenaarde (BE). (74) Agent: O'CONNOR, Gregory, W.; Samsonite Corporation, 11200 East forty-fifth Avenue, Denver, CO 80239 (US).		(81) Designated States: CA, CN, IN, JP, KR, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>
(54) Title: COMPUTER CARRYING CASE WITH RIGID FRAME AND ACCESS FROM THE TOP AND THE BOTTOM 		
(57) Abstract The present invention relates to computer carrying cases comprising a molded peripheral frame (10) and access doors (11, 12). Each of the access doors comprise soft molded shells (13, 14) that protrudes outside the frame to define a computer carrying case with three compartments. Between a first and second compartment there is located a panel (15) having a sleeve (17) to receive and suspend a laptop computer (C) away from the interior of the frame.		

COMPUTER CARRYING CASE WITH RIGID FRAME AND ACCESS FROM THE TOP AND THE BOTTOM

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Background of the Invention

This invention relates to cases for carrying laptop computers and, more specifically, to a computer case that may appeal to female users. This invention also relates to improved protection, as well as improved access to a laptop computer carried in a shoulder bag.

10

Discussion of Prior Art

There are many types of cases used to carry computers. Most of them involve a textile or soft-sided "drum" construction assembly using soft materials to build a briefcase-like case. The computer is placed in the large compartment within a peripheral framed rail, and the computer is accessed through a zippered door on one side of the rail. Alternatively, computer cases can look like conventional hardside attache cases. Here a plastic molded or wood box construction serves as the main body, with a hinged and latched access to the computer being had through one side of the case.

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Samsonite Corporation has marketed a cosmetic or beauty case for a number of years under the name "Handy Case." This case consisted of a molded frame with two hinged doors, one on each side of the molded frame. The hinged doors comprised a molded peripheral frame which was hinged and selectively latched to each side of the frame. The framed door had a molded fabric-covered panel glued to the other side of

the hinged frame. Inside was a releasable panel which could be hinged open from one side to reveal a larger compartment on the other side within the frame. This particular case had never been used for a laptop computer carrying case, primarily because the main frame of this beauty case was much too small to receive a computer.

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Brief Description of the Invention

The inventive computer carrying case comprises a molded peripheral frame to which is hinged an access door on each open side of the frame. This access door opens up to reveal the inside of the case. Each of these access doors comprise a frame and a soft molded shell that protrudes outside the frame to define a computer carrying case with three compartments, a first compartment defined by the volume within the periphery of the molded frame, a second compartment defined in the soft molded shell portion of a first door, and a third compartment similarly defined in the other of the hinged molded shell doors. Between the first and second compartments is a panel that has a sleeve or pouch to receive a laptop computer. This panel hinges out from and into the first compartment within the frame so that the laptop computer is easily accessed when the panel is hinged outwardly, but the computer is protected by the molded frame when the panel is hinged to its closed position.

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Brief Description of the Drawings

Figure 1 shows the computer case according to the instant invention.

Figure 2 shows a case according to this invention with the doors, the divider

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panel all on various gusseted attachments in their open position providing access to various compartments of the case simultaneously.

Figure 3 is an end view, with gussets and straps removed, showing the configuration illustrated in Figure 2.

5 Figure 4 shows the first hinged door open on the case to reveal the panel.

Figure 5 shows this panel hinged away from the peripheral frame with the laptop computer being inserted into the pouch carried by that panel.

Figure 6 shows both the first and second doors in their open position and the laptop computer panel in its closed position to reveal further organizing features.

10 Figures 7, 8 and 9 are schematic drawings showing the front view, end view, and top view of this invention, illustrating the position of the pocket for the laptop computer in Figure 5.

Detailed Description of the Invention

15 The frame 10 of the laptop computer carrying case 1 is of a known construction, preferably of an ABS plastic, produced by injection molding or the like using conventional construction techniques. The doors 3 and 4 have door frames 11 and 12 also of injection molded plastic, although they could be formed of bent metal material, as long as they conformed to the appropriate shape defined by the injection molded

20 frame. A handle 2 attached to the top center of the frame can convert to a shoulder strap using conventional techniques. Opposite the handle is the bottom side of the frame that normally rests on a horizontal surface when not being carried by the handle

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2 or strap.

Note that the injection molded frame 10, in contrast with many computer cases, has a generally rounded shape in plan view (Fig. 5, for example) with four generally curving sides and smooth, integrally formed corners interconnecting these sides. The frame 10 forms a first compartment 20 sized to hold a laptop computer "C." This has aesthetic advantages and serves to isolate the generally rectangular shaped laptop computer from the sides of the case. Should the case drop on one of the rounded sides, it is likely the impact and blow would be deflected by the frame and absorbed by the flexural yielding of the frame in response to that blow. The frame is sized to accommodate the computer case C with space around the sides to permit this deflection and impact absorbing effect.

The molded shell portions 13 and 14 making up the bulk of each of the hinged doors are preferably of a semi-flexible material, such as a cross linked polyethylene foam laminated to a fabric on the inside and outside. These semi-soft shells have an aesthetic function and provide the second 21 and third 23 storage volumes or compartments for papers and the like, as mentioned above. Also, if the case should fall on one of these semi-soft shells, it has been found that they act as a cushioning system in concert with the panel carrying the laptop computer itself.

Note that the laptop computer "C" is suspended in a closable pouch 17 in the middle of the panel 15, which is in turn hinged at the bottom side of the main frame at 16. To enhance the shock isolation of the computer, the pouch includes a foam surround which gives shape to the pocket plus isolates the computer. This isolation,

with the continuous hoop-like molded frame 10, serves to insulate somewhat the laptop computer against some impact as explained above. However, if the computer within this case should drop on the floor with the soft shell door hitting first, the soft shell gives, absorbing some of the shock. Also, note that the divider panel 15 conforms

5 substantially to the shape of the inner dimensions of the frame. In this way, the panel acts as a piston against any air trapped between the closed door impacted by the fall and the laptop computer carrying panel. Much of the energy in the impact could be absorbed by compressing the air in this envelope defined by the shell, the frame, and the computer carrying panel. The panel itself can consist of conventional luggage

10 materials, such as a relatively stiff stitchable plastic such as polyethylene or even composition board or the like.

Hinged to the opposite lower edge of the frame 10 is a second panel 19. This panel has organizing features arrayed on the side facing packing space 21. The other side of this panel 19 could have a slit pocket for thin papers and the like but is

15 otherwise simply constructed to keep the packing compartment or space 20 clear for receiving the laptop computer in the pouch 17 as shown. The panel 15 is preferably held in a partially open position by simple webbing straps 23 as shown, while the door frames 11 and 12 are held in a maximum open position by gusset panels 25 and 26, with gusset panels optimally including a portfolio for additional papers and the like.

20 The main advantages of this case as described now become clear. The aesthetic advantages of the shape can distinguish this case from others in the market. Also, the pivoting panel places the computer more in the geometric center of the

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uninterrupted continuous injection molded plastic frame. This protects the computer from side impact somewhat, and also helps isolate the computer by locating the soft shell doors uniformly to either the front and back of the laptop computer positioned on the hinged divider pad.

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Claims:

- 1 A computer carrying case comprising a molded peripheral frame to which is
hinged an access door, one such access door on each side of the frame, each access
door hingedly opening to the inside of the case, and each access door comprising a
5 frame and a soft molded shell that protrudes outwardly from the frame to define a
computer carrying case with three compartments, a first compartment defined by the
volume within the periphery of the molded frame, a second compartment defined within
the soft molded shell portion of a first access door, and a third compartment similarly
defined in the other of the access doors, hingedly mounted between the first and
10 second compartments is a panel bearing a sleeve sized to receive a laptop computer,
this sleeve hinges out from and into a closed position within the first compartment and
within the frame so that the laptop computer is easily accessed when the panel is
hinged outwardly, whereby the computer is protected within the molded frame when the
laptop computer is contained within the sleeve and the panel is hinged to its closed
15 position.
2. A computer carrying case as set forth in Claim 1 wherein the molded frame has a
generally rounded overall plan shape with four generally curving sides and smooth,
integrally formed corners interconnecting these sides, and the hingedly mounted panel
20 has a similar shape in plan which conforms substantially to the shape of the inner
dimensions of the frame, whereby should the case fall to the floor when the access
doors are closed and an access door impacts the floor, the panel acts as a piston

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against air trapped between the closed door impacted and the panel impacted by the fall.

3. A computer carrying case as set forth in Claim 1 wherein the frame has a bottom
5 portion, and the access doors are hinged at the bottom portion, and the panel is hinged
at the bottom portion, whereby in use the access doors and the panel can be hinged
open to permit access to the first compartment, the second compartment, and the third
compartment simultaneously.

10 4. A computer carrying case as set forth in Claim 3 wherein the hinged panel is
hinged to the frame at a first of the access doors, and sleeve on the hinged panel
protrudes into the frame and thus into the first compartment.

5. A computer carrying case as set forth in Claim 4 further including a second panel
15 hinged along the bottom side of the frame at the second of the access doors.

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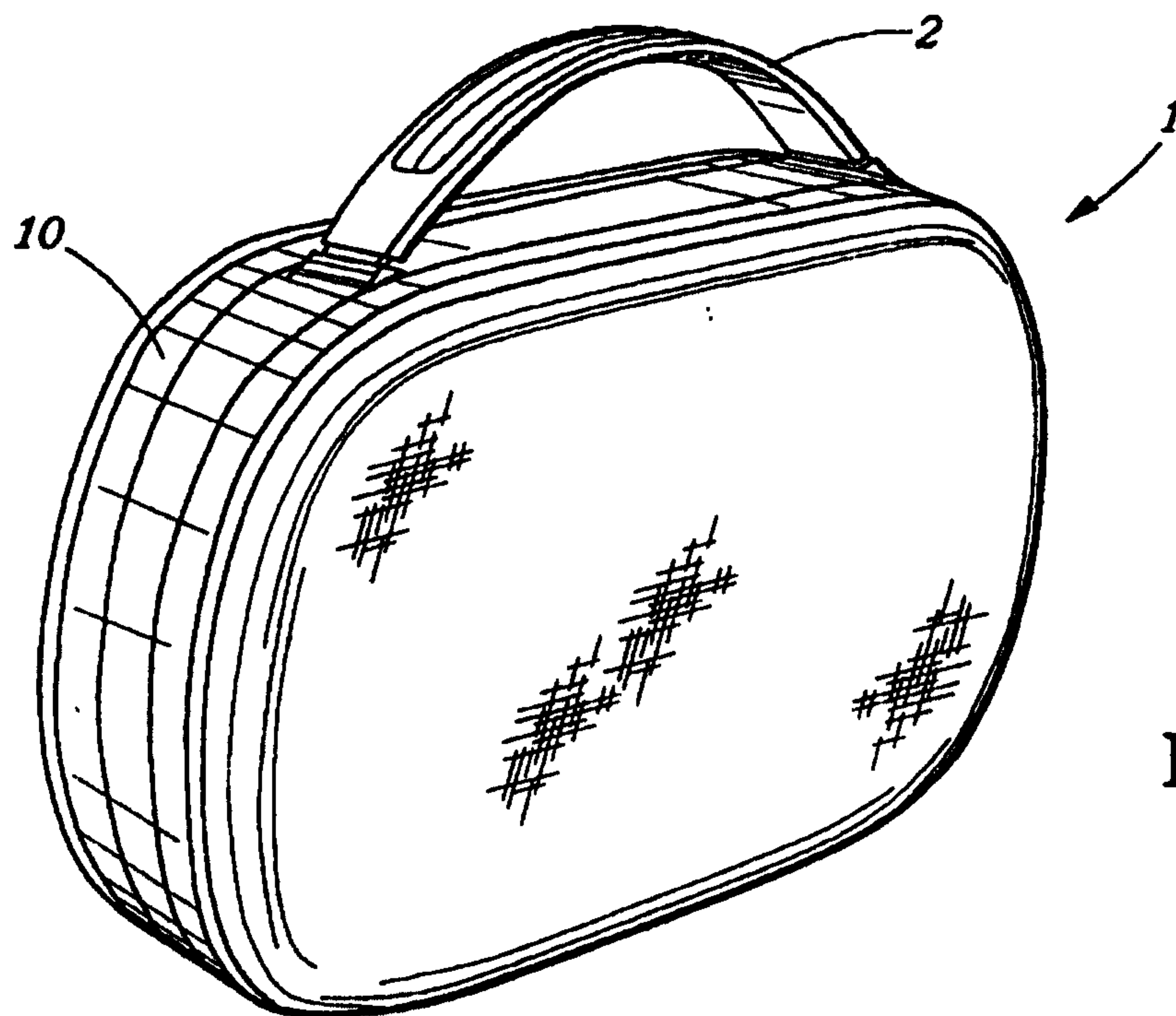


FIG. 1

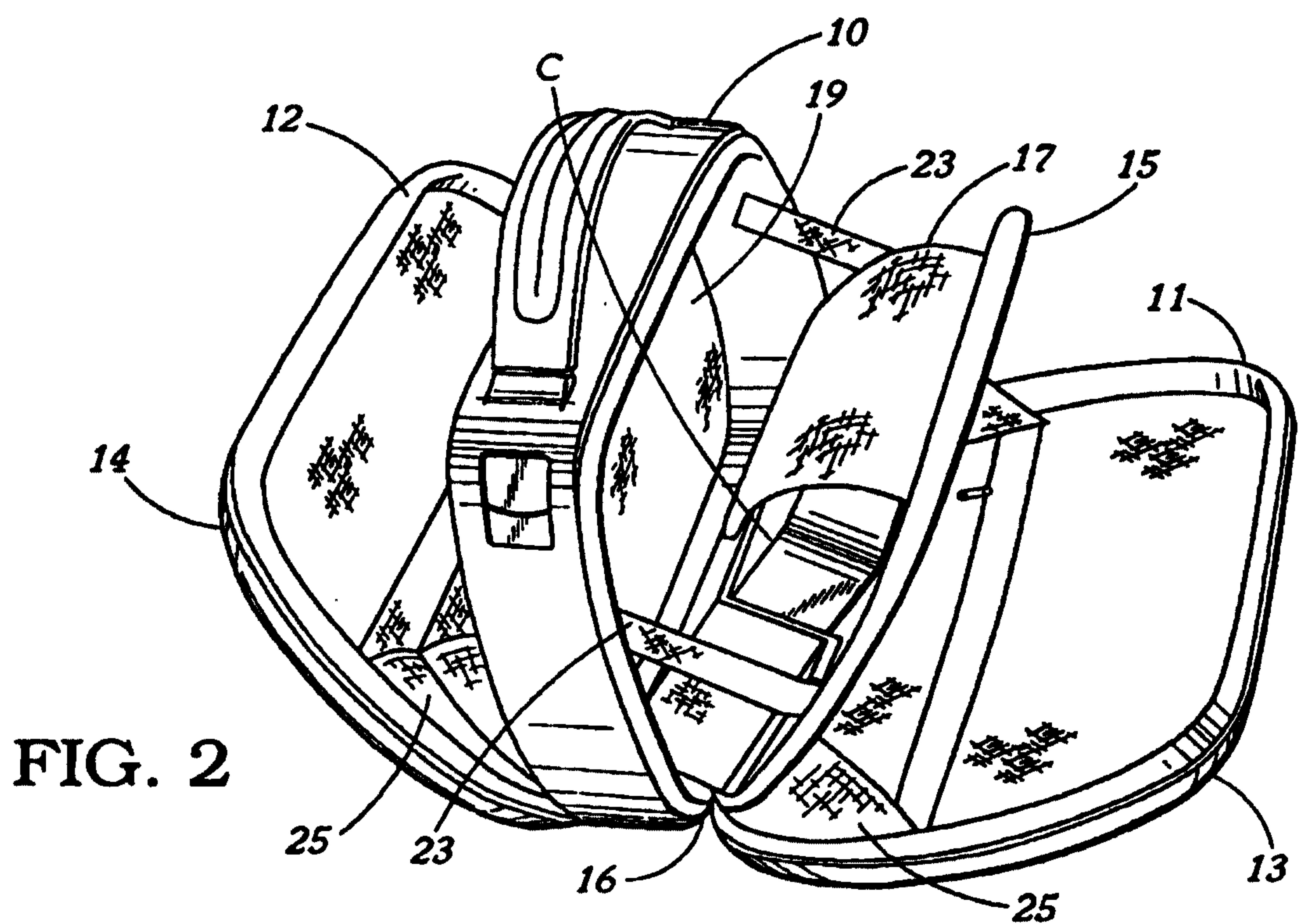
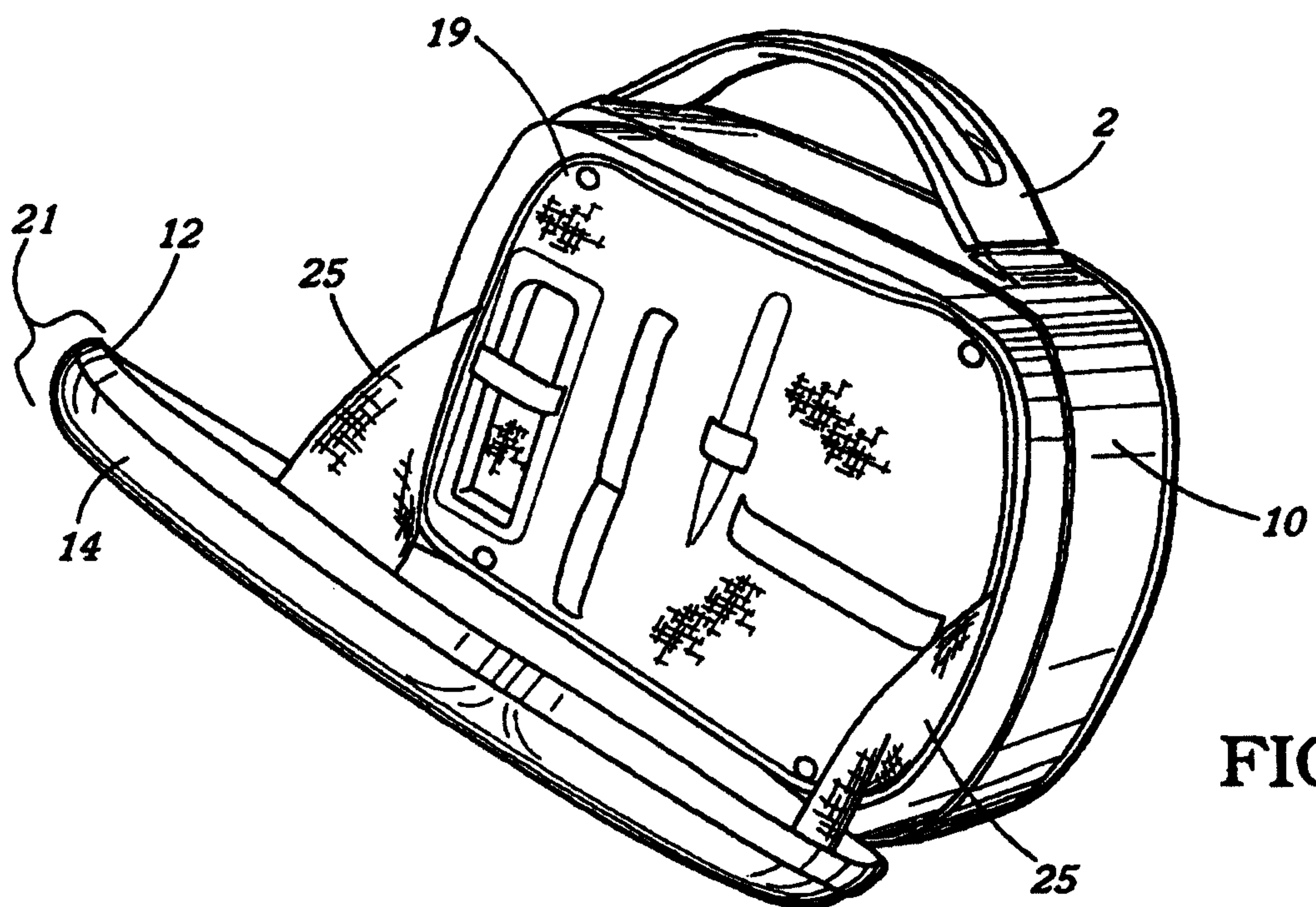
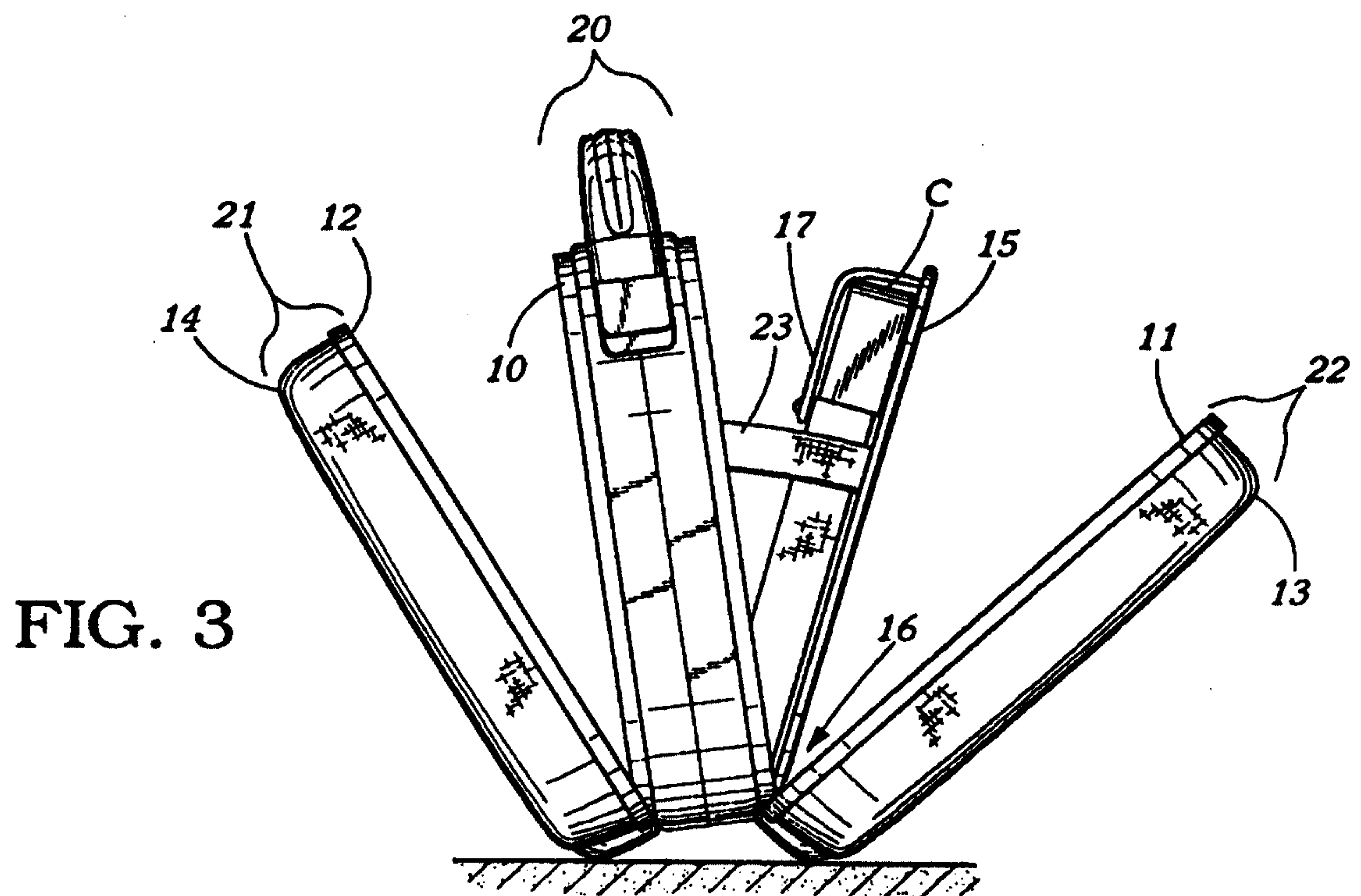


FIG. 2

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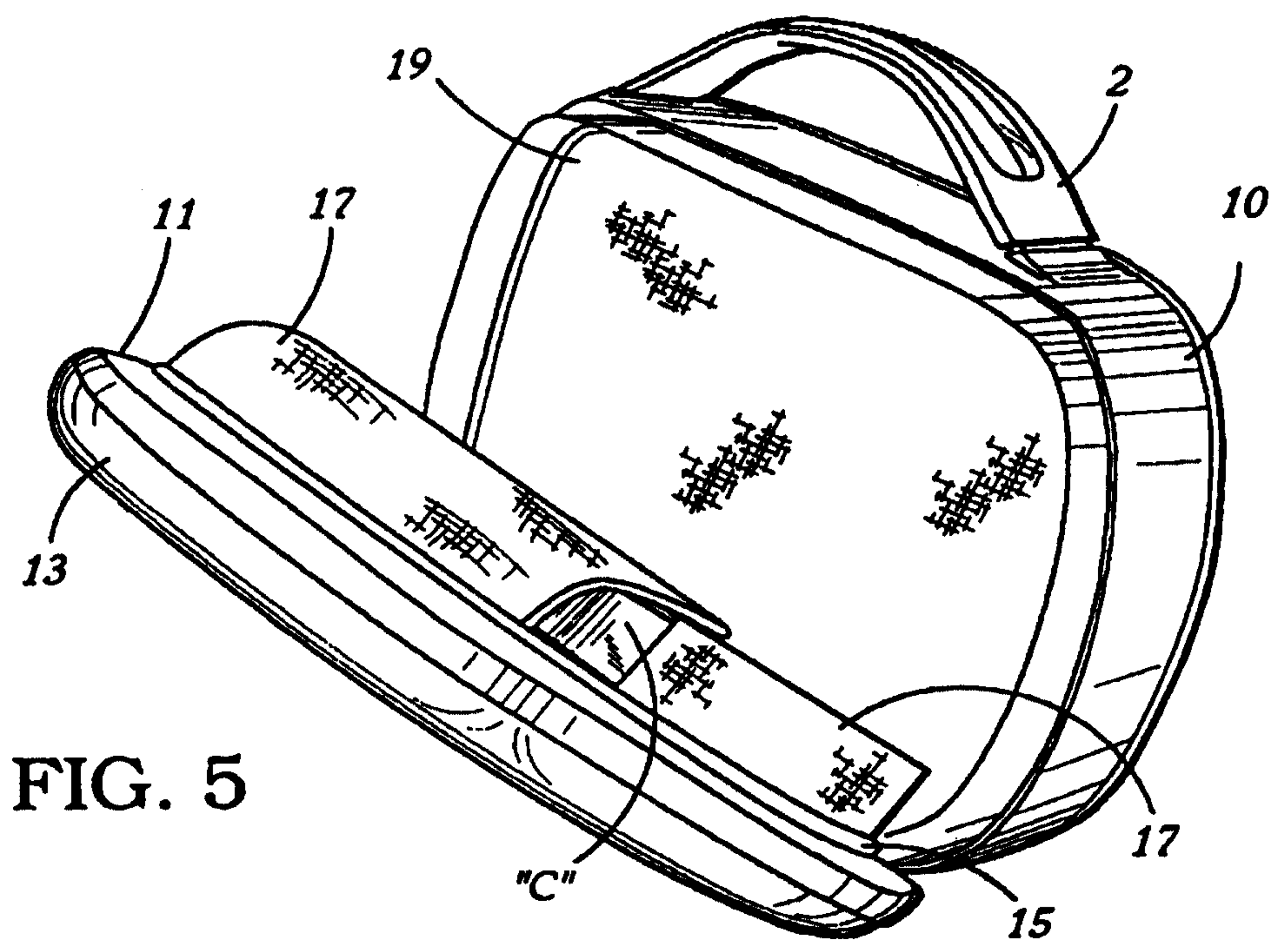


FIG. 5

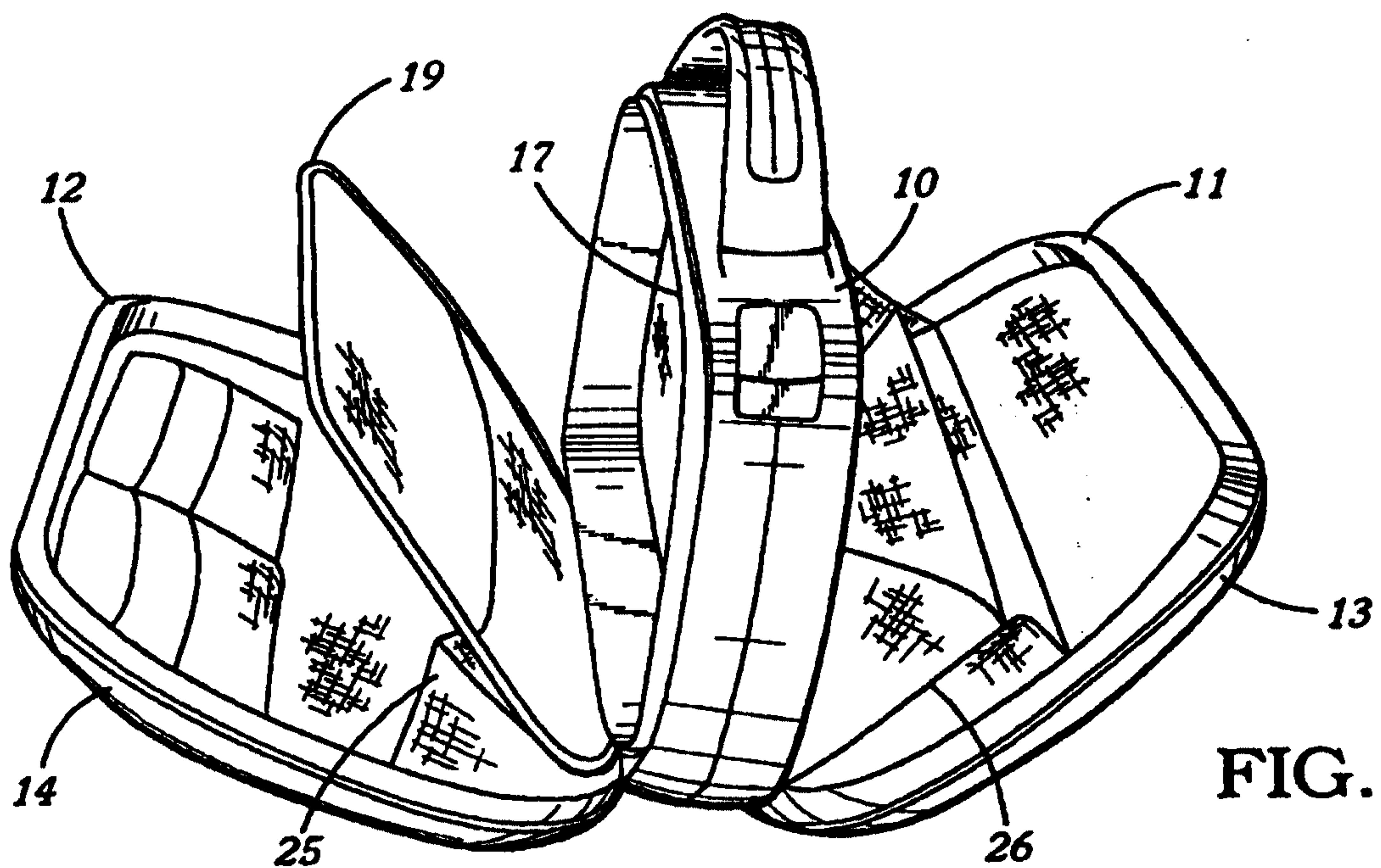


FIG. 6

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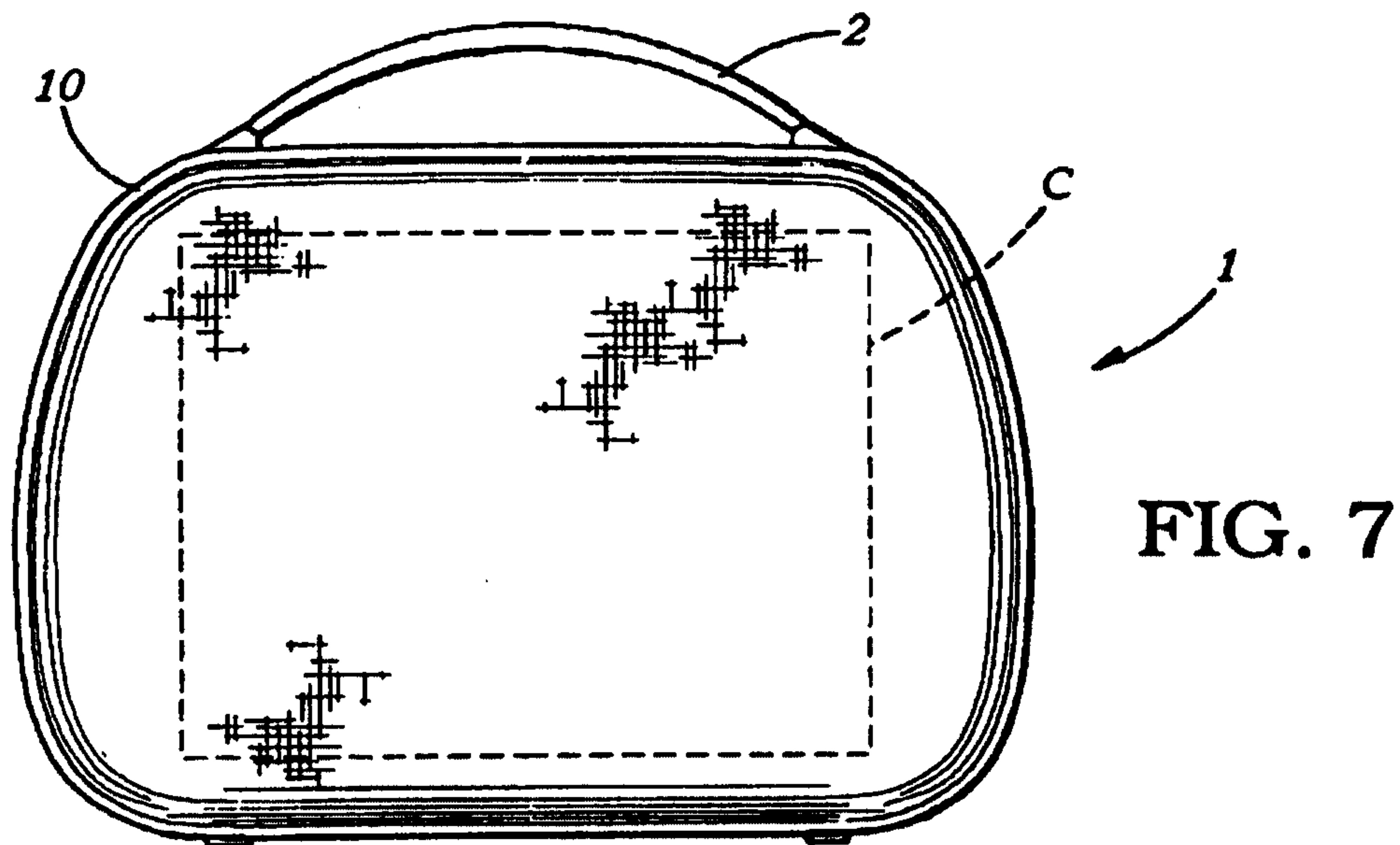


FIG. 7

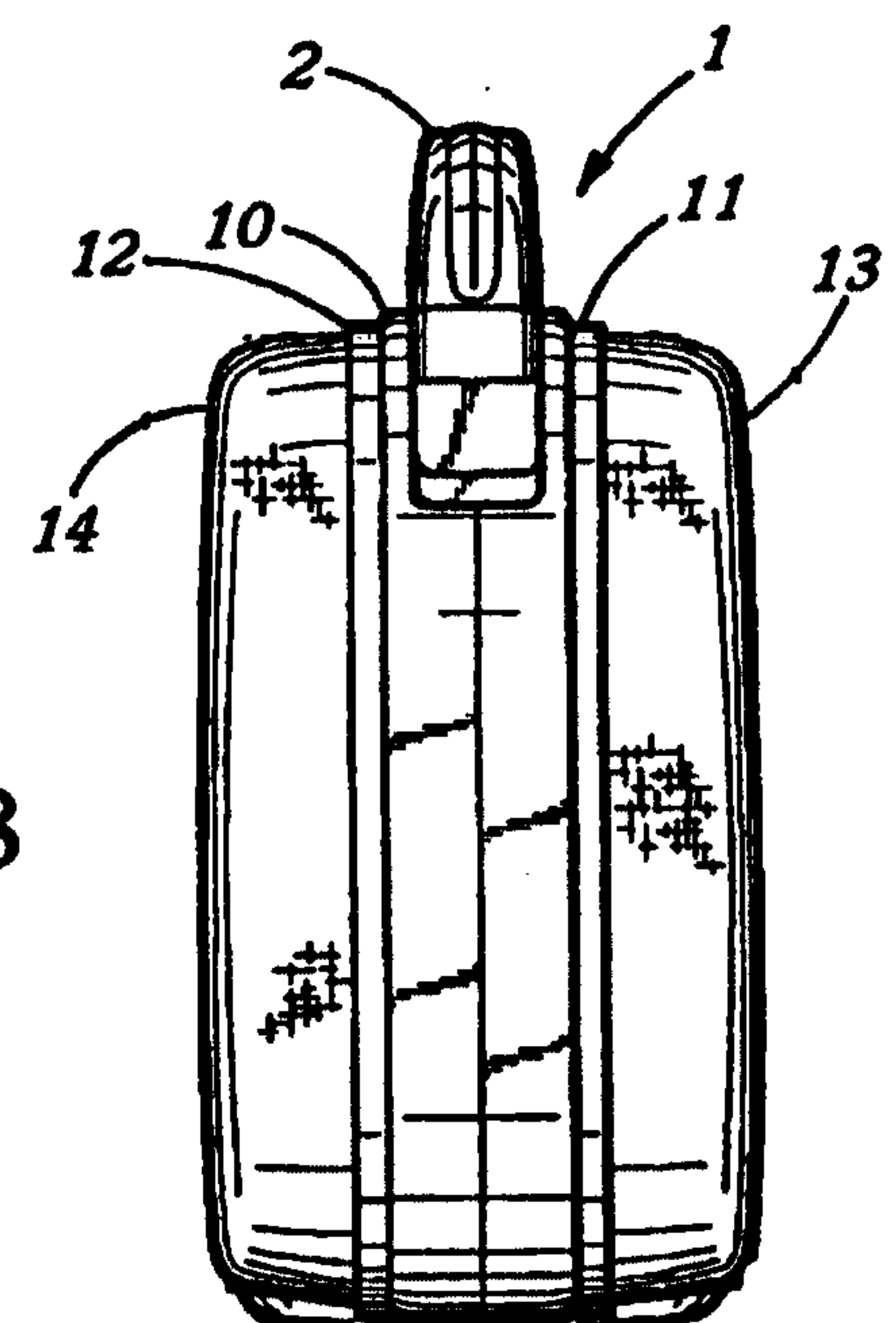


FIG. 8

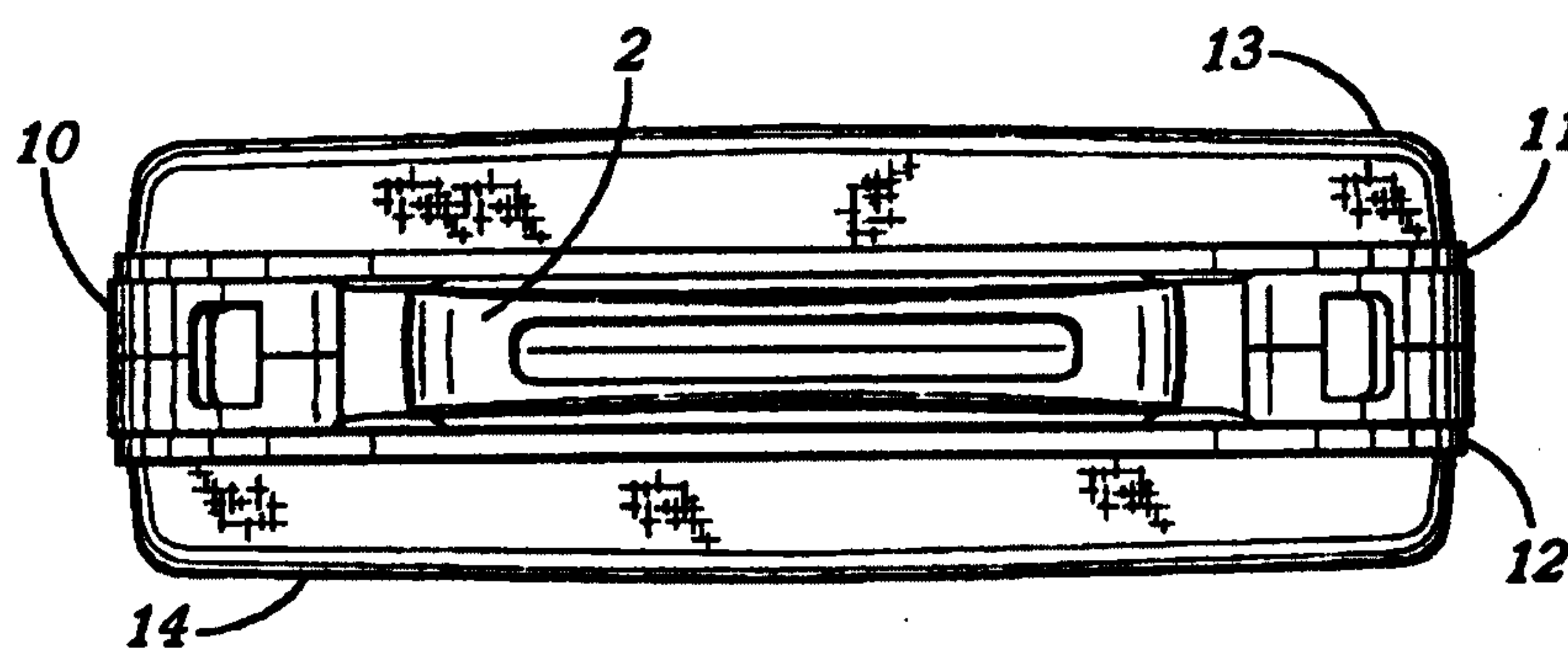


FIG. 9