



Board of Patent Appeals
and Interferences

Informative

Opinion

The opinion in support of the decision being entered today is *not* binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT C. DART,
RYAN P. GINGRAS and TODD ATKINS

Appeal 2007-1325
Application 10/065,722
Technology Center 3781

Decided: August 22, 2007

Before: MICHAEL R. FLEMING, Chief Administrative Patent Judge,
FRED E. McKELVEY, *Senior Administrative Patent Judge*, and
JOSEPH A. FISCHETTI, *Administrative Patent Judge*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

1 **A. Statement of the case**

2 Appellants Robert C. Dart, Ryan P. Gingras and Todd Atkins
3 (hereafter "**Dart**") seek review under 35 U.S.C. § 134(a) of a rejection of
4 claims 3, 9-11, 27-29, 36-39, 44-50, 55-59, 63, 68-71, 75-77, 80-83, and
5 88-95. There are other claims in the application. Some claims are objected
6 to as depending from rejected claims. Other claims have been allowed. The

1 status of all pending claims as of the date of the Examiner's Answer is
2 identified in Appendix 1.

3 We have jurisdiction under 35 U.S.C. § 6(b). While the rejection on
4 appeal is not a final rejection, Dart's claims have been twice rejected within
5 the meaning of 35 U.S.C. § 134.

6 The application on appeal was filed on 13 November 2002 and was
7 published as Published Application 2003/0089714 A1 on 15 May 2003.
8 The four-digit paragraph numbers of the Specification as filed do not
9 coincide with the four-digit paragraph number of the application as
10 published. Since the Appeal Brief refers to the four-digit paragraph numbers
11 of the specification, as filed, we will do likewise.

12 Dart claims benefit of an earlier filing date based on (1) Provisional
13 Application 60/350,706, filed 13 November 2001, (2) Provisional
14 Application 60/350,875, filed 22 January 2002 and (3) Provisional
15 Application 60/410,380, filed 13 September 2002.

16 The real party in interest is Dart Container Corporation. Appeal
17 Brief 1.

18 The Examiner rejected claims 3, 9-11, 27-29, 36-40, 44-50, 55-59, 63,
19 68-71, 75-77, 80-83, and 88-95 under 35 U.S.C. § 103(a) as being
20 unpatentable over Freek and Waterbury. (The reader should know that no
21 references to *et al.* are made in this opinion.)

22 The Examiner has also rejected claims 49-59 under 35 U.S.C. § 112,
23 second paragraph, as being indefinite.

1 The following prior art was relied upon by the Examiner.

2

| 3 | <u>Name</u> | <u>Patent Number</u> | <u>Issue Date</u> |
|---|-------------|----------------------|-------------------|
| 4 | Waterbury | US 4,232,797 | Nov. 11, 1980 |
| 5 | Freek | US 5,996,837 | Dec. 07, 1999 |

6

7 In addition to the prior art cited by the Examiner, we also refer to the
8 following additional prior art.

9

| 10 | <u>Name</u> | <u>Patent Number</u> | <u>Issue Date</u> |
|----|-------------|----------------------|-------------------|
| 11 | DeMars | US 4,899,902 | Feb. 13, 1990 |
| 12 | Mueller | US 5,415,312 | May 16, 1995 |
| 13 | Lane | US 5,490,609 | Feb. 13, 1996 |
| 14 | Aichert | FR 2 736 620 | Jan. 17, 1997 |

15 All prior art cited above is prior art under 35 U.S.C. § 102(b).

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17 **B. Record on appeal**

18 In deciding this appeal, we have considered *only* the following
19 documents:

- 20 1. Specification, including original claims.
- 21 2. Drawings.
- 22 3. Office Action entered 26 January 2006
- 23 4. Notice of Appeals filed 24 April 2004.
- 24 5. The Appeal Brief filed 26 June 2006.
- 25 6. The Examiner's Answer entered 26 October 2006.
- 26 7. Freek.
- 27 8. Waterbury.

- 1 9. DeMars.
- 2 10. Aichert
- 3 11. Mueller.
- 4 12. Lane.
- 5 13. PTO bibliographic data sheet for the application on appeal.
- 6 14. Published Application 2003/0089714 A1.
- 7 15. Pending claims as reproduced in the Claims Appendix of
- 8 the Appeal Brief filed 26 June 2006.

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C. Issues

11 A first issue on appeal is whether Dart has sustained its burden of
12 showing that the Examiner erred in rejecting the rejected claims on appeal as
13 being unpatentable under 35 U.S.C. § 103(a) over the prior art.

14 According to Dart, the first issue turns on (1) whether Freek and
15 Waterbury are "analogous art," (2) if so, whether there is a teaching,
16 suggestion or motivation to combine Freek and Waterbury, and (3) if so,
17 whether the combination of Freek and Waterbury "teaches" the claimed
18 invention.

19 What is not an issue in the appeal is whether the claimed invention
20 has been a commercial success. Dart has presented no evidence of
21 commercial success and accordingly has waived its opportunity to have
22 commercial success considered on appeal.

23 A second issue on appeal is whether the subject matter of claim 84
24 and claims which depend from claim 84 are unpatentable under 35 U.S.C.
25 § 112, second paragraph, as being indefinite. 37 C.F.R. § 41.50(b) (2006).

1 What is not an issue on appeal is whether the Examiner erred in
2 rejecting claims 49-59 as being unpatentable under 35 U.S.C. § 112, second
3 paragraph, for failure to particularly point out and distinctly claim the
4 invention.

5 In the Appeal Brief, Dart says that it is "not appealing this rejection in
6 this proceeding." (Appeal Brief 4 n.2).

7 However, in the Notice of Appeal, Dart says that it appeals from the
8 last decision of the Examiner.

9 Contrary to Dart's assertion that it is not appealing the § 112 rejection,
10 Dart has appealed the rejection, but has abandoned the appeal as to the
11 rejection.

12 Accordingly, the appeal will be dismissed as to claims 49-59 and
13 therefore there is no further need to address or consider the Examiner's
14 § 112, second paragraph, on the merits.

15

16 **D. Findings of fact**

17 The following findings of fact are believed to be supported by a
18 preponderance of the evidence. To the extent that a finding of fact is a
19 conclusion of law, it may be treated as such. Additional findings as
20 necessary may appear in the discussion portion of the opinion.

21

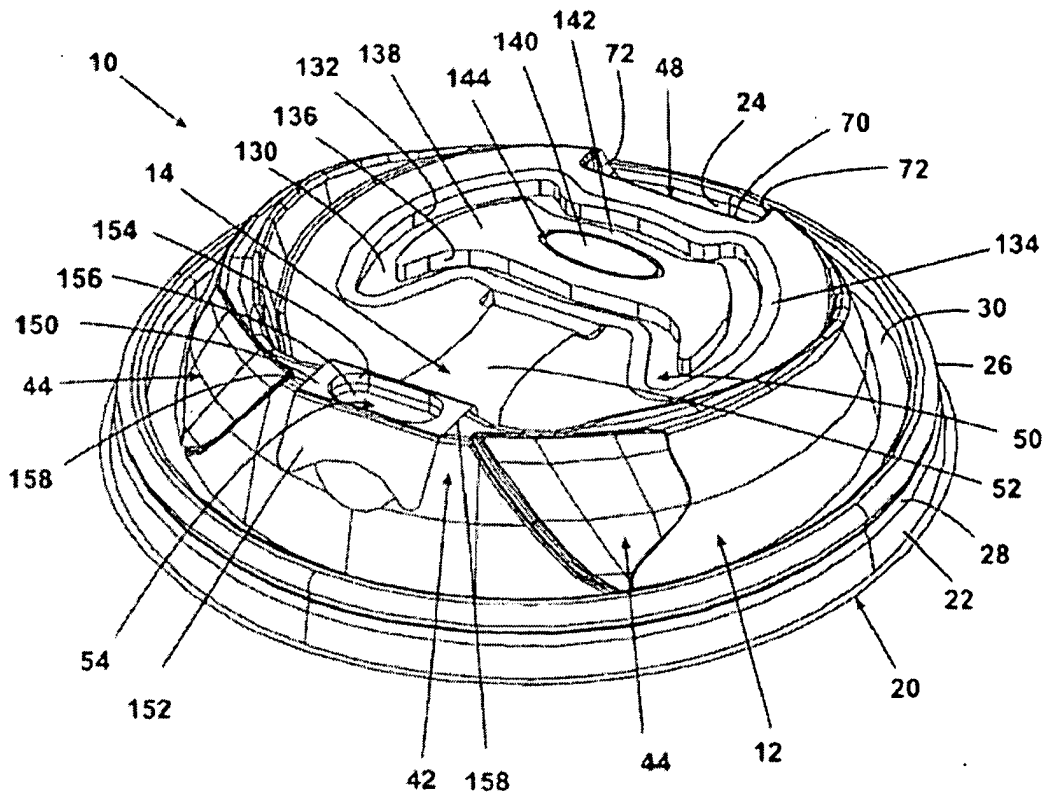
The invention

22 The invention can be understood by references to Figs. 1, 2 and 6, and
23 independent claims 83-84 and 88-89.

↘

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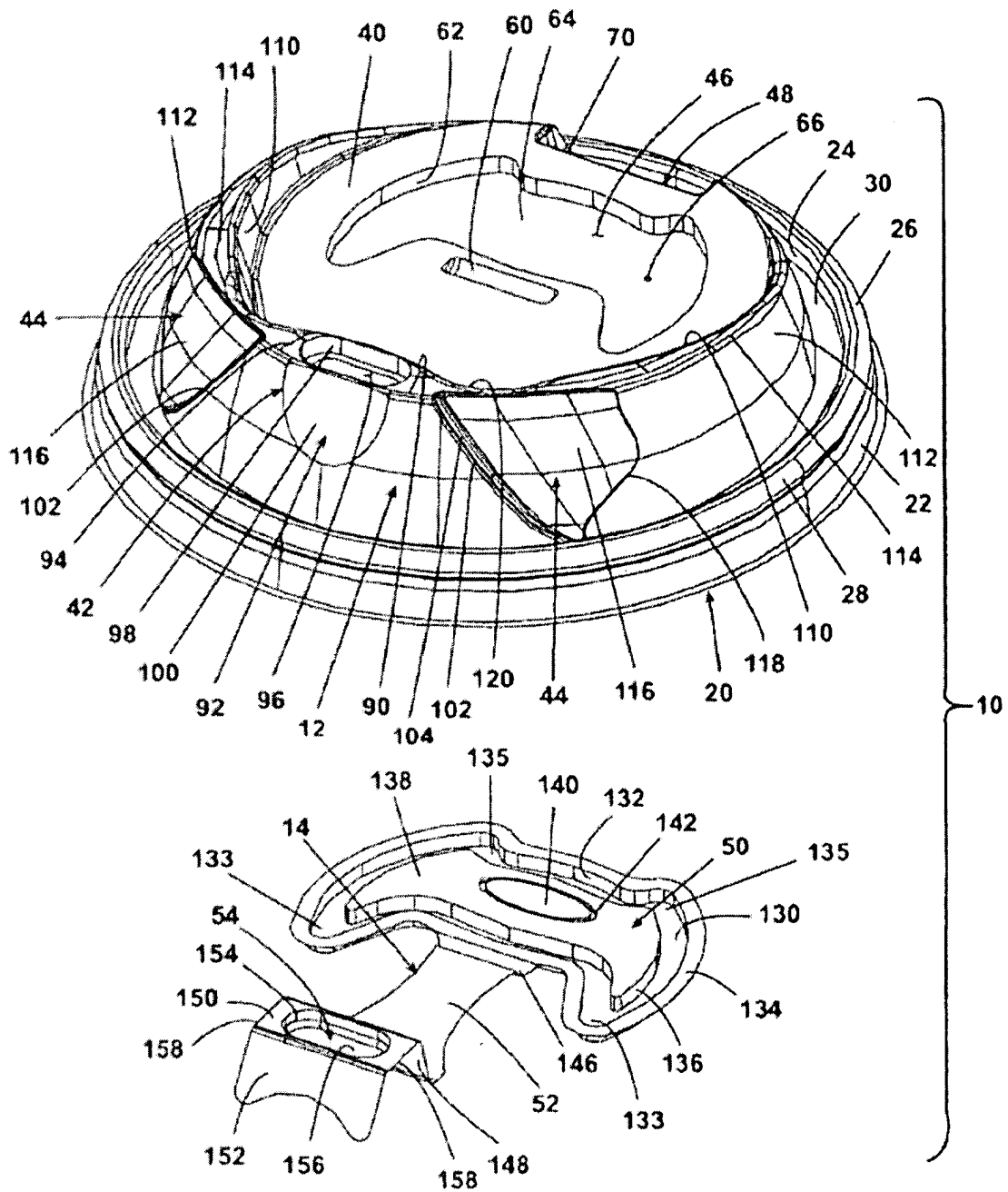
Drawings



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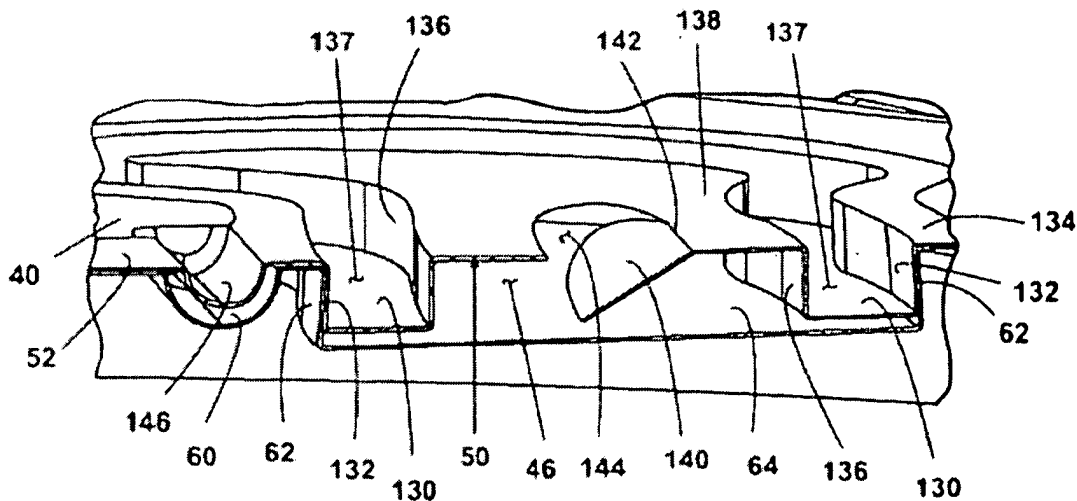
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Dart Fig. 1—Dart lid with cap in closed position



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Dart Fig. 2—Dart lid with cap in open position



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Dart Fig. 6A—Lid with cap in closed position and showing chamber

Claims 83-84 and 88-89

Claims 83-84 and 88-89 are representative of the claimed invention [some indentation, drawing element numbers and footnote material added].

Claim 83

A disposable, recloseable¹ lid [Figs. 1-2 10] comprising:
a dome-shaped cap [Figs. 1-2 12] sized to overlie and substantially cover the open top of a cup [not shown], the cap 12 comprising
a mounting recess [Fig. 2 46],
an upper surface [Fig. 2 40],

¹ In the claims, as reproduced in the Claims Appendix of the Appeal Brief, Dart uses the term "reclosable". The specification uses the term "recloseable." See, e.g., Specification 1 ¶ 0001. We have reproduced the claims using the term found in the Specification.

1 a side wall [Fig. 2 112] at least partially encircling the
2 upper surface [Fig. 2 40] and terminating in a top wall
3 [Fig. 2 114], and
4 a drink opening [Fig. 2 96]² located in the top wall
5 [Fig. 2 114];
6 a mounting ring [Figs. 1-2 20] connected to the cap
7 [Figs. 1-2 12] for mounting the cap to a cup; and
8 a tab closure [Fig. 2 14] comprising a mounting plug
9 [Fig. 2 50] and a drink plug [Fig. 2 54] connected by a strap [Fig. 2
10 52], the mounting plug [Fig. 2 50] sized to be received within the
11 mounting recess [Fig. 2 46], and the drink plug [Fig. 2 54] sized to be
12 received within the drink opening [Fig. 2 54] wherein the user can
13 open and close the lid by removing or inserting the drink plug from
14 the drink opening.

15 Claim 84

16 A disposable, recloseable lid [Figs. 1-2 10] comprising:

17 a dome-shaped cap [Figs. 1-2 12] sized to overlie and
18 substantially cover the open top of a cup [**not shown**], the cap 12
19 comprising
20 an upper surface [Fig. 2 40],
21 a drink opening [Fig. 2 96], and
22 a mounting recess [Fig. 2 46] formed therein;

² In the Specification, element 96 is referred to as "[t]he dispensing aperture." Specification 9 ¶0049.

1 a mounting ring [Fig. 1 **20**] connected to the cap **12** below the
2 upper surface **40** and for mounting the cap **12** to a cup [**not shown**];
3 and

4 a tab closure [Fig. 2 **40**] comprising
5 a mounting plug [Fig. 2 **50**] and
6 a drink plug [Fig. 2 **54**]
7 connected by a strap [Fig. 2 **52**],

8 the mounting plug [Fig. 2 **50**] sized to be received within the
9 mounting recess [Fig. 2 **46**], and

10 the drink plug [Fig. 2 **54**] sized to be received within the drink
11 opening [Fig. 2 **96**] where the user can open and close the lid by
12 removing or inserting the drink plug from the drink opening;

13 wherein the mounting recess [Fig. 2 **46**] has a bottom wall
14 [Fig. 2 **64**] and the mounting plug has a bottom wall [Fig. 2 **130**],
15 which is spaced above the mounting recess bottom wall [Fig. 2 **64**]
16 when the mounting plug is received within the mounting recess
17 [Fig. 2 **46**] to define a chamber [Fig. 6A area between mounting plug
18 bottom wall **130** and mounting recess bottom wall **46**³] therebetween.

19 Claim 88

20 A disposable, recloseable lid [Figs. 1-2 **10**] comprising:

³ Insofar as we can tell, the claim language "to define a chamber therebetween" has no direct antecedent basis in the descriptive portion of the specification. However, see original claim 40. According to Dart, the quoted limitation is supported in the specification at page 9, ¶ 0053, lines 8-10 and Figure 6 [sic—Figure 6A]. Appeal Brief 3. Later in the opinion we reject claim 84 as being indefinite.

1 a dome-shaped cap [Figs. 1-2 12] sized to overlie and
2 substantially cover the open top of a cup [not shown], the cap
3 [Figs. 1-2 10] comprising
4 an upper surface [Fig. 2 40],
5 a drink opening [Fig. 2 96], and
6 a mounting recess [Fig. 2 46] formed therein;
7 a mounting ring [Figs. 1-2 20] connected to the cap
8 [Figs. 1-2 12] below the upper surface [Fig. 2 40] and for mounting
9 the cap [Figs. 1-2 12] to a cup [not shown]; and
10 a tab closure [Fig. 2 14] comprising
11 a mounting plug [Fig. 2 50] and
12 a drink plug [Fig. 2 54]
13 connected by a strap [Fig. 2 52],
14 the mounting plug [Fig. 2 50] sized to be received within the
15 mounting recess [Fig. 2 46], and the drink plug [Fig. 2 54] sized to be
16 received within the drink opening [Fig. 2 96]
17 wherein the user can open and close the lid by removing or
18 inserting the drink plug [Fig. 2 54] from the drink opening [Fig. 2 96]
19 wherein the mounting recess [Fig. 2 46] and mounting plug
20 [Fig. 2 50] each comprise an inset portion,⁴ and the strap [Fig. 2 52]
21 connects to the inset portion of the mounting plug.

⁴ Insofar as we can tell, the language "inset portion" does not appear in the descriptive portion of the specification. However, see original claims 44 and 75. Likewise, Dart does not identify any drawing element number or portion of the Specification in discussing "inset portion" on page 3, last line of the Appeal Brief.

Claim 89

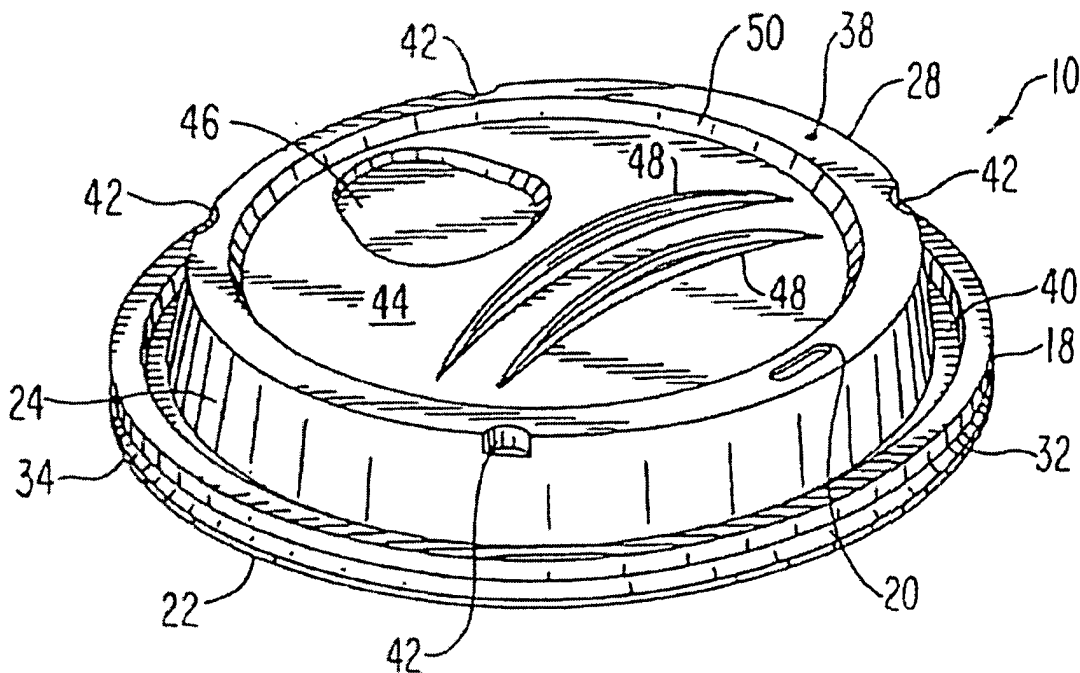
1
2 A disposable, recloseable lid [Figs. 1-2 10] comprising:
3 a cap [Figs. 1-2 12] sized to overlie and substantially cover the
4 open top [not shown] of a cup [not shown], the cap [Figs. 1-2 12]
5 comprising a mounting recess [Fig. 2 46] and a drink opening
6 [Fig. 2 96];
7 a mounting ring [Figs. 1-2 20] connected to the cap
8 [Figs. 1-2 12] for mounting the cap to a cup;
9 a tab closure [Fig. 2 14] comprising
10 a mounting plug [Fig. 2 50] and a drink plug [Fig. 2 54]
11 connected by a strap Fig. 2 52], the mounting plug [Fig. 2 50] is sized
12 to be received within the mounting recess [Fig. 2 46] to mount the tap
13 closure [Fig. 2 14] to the cap Figs. 1-2 12], and the drink plug
14 [Fig. 2 54] is sized to be received within the drink opening [Fig. 2 96];
15 a drink plug holder [Fig. 2 48] for holding the drink plug
16 [Fig. 2 54] in a stored position when the lid is in the open position;
17 and
18 the cap [Fig. 2 12] and tab closure [Fig. 2 14] are thermoformed
19 from a common plastic sheet⁵ wherein an easy to assemble recloseable

⁵ The phrase "plastic sheet" appears in the specification. Specification 4 ¶ 0012. In so far as we can tell, the phrase "common plastic sheet" does not appear in the specification. However, the phrase "same plastic sheet" appears in original claim 2. We assume that "same" and "common" mean the same thing. However, in context both "same" and "common" have at least two meanings: (1) the cap and tab closure are made from a single sheet of plastic or (2) the cap and tab closure are made from the same plastic, but

1 lid [Figs. 1-2 **10**] is provided wherein the user can open and close the
2 lid by removing or inserting the drink plug [Fig. 2 **54**] from the drink
3 opening [Fig.2 **96**] while the tab closure remains mounted to the cap.

4 Prior art

5 Freek



6
7 Freek Fig. 1—Freek drink cup cap

8 1. With reference to Fig. 1, Freek describes a lid **10** with drink
9 opening **20** that is designed to be mounted to a cup **12** [not shown in Fig. 1,
10 but see Fig. 5]. col. 3:39-40.

possibly different sheets of the same plastic. Our concern is not relevant to resolution of the § 103 issues on appeal since plastic caps have long been made by thermoforming plastics sheets and it would not make any difference whether a cap and a tab are made from the same sheet or from different sheets of the same plastic. Nevertheless, Dart may wish to clarify the meaning of its claim should it elect to further prosecution of the application.

1 2. The lid **10** can be made by thermoforming a plastic sheet material.
2 col. 1:65 through col. 2:3 and col. 6:53-56.

3 3. Drink opening **20** as illustrated in Fig. 1 is merely an opening in lid
4 **10**. The drink opening may include a cover or plug [**not shown**] which may
5 be readily removed by the consumer prior to consumption of the contents of
6 the cup. col. 3:61-65.

7 4. The use of plugs in plastic lid openings was known long prior to
8 Freek. *See, e.g.,* DeMars, Figs. 1-2.

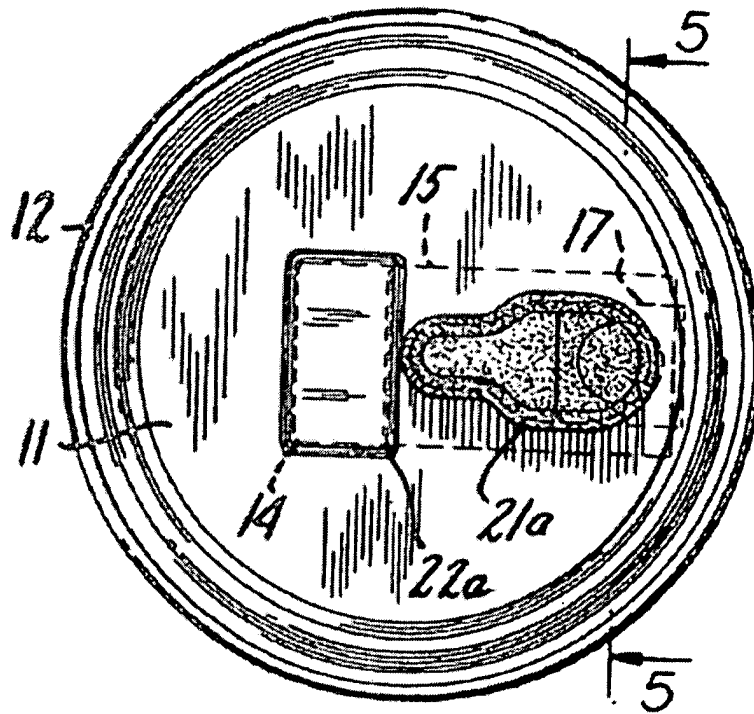
9 5. Lid **10** has a top surface **44** having what Freek describes as a
10 conical configuration. col. 5:12-15.

11 6. Mounting ring **34** forming part of the lid below the top surface is
12 used to mount the lid to a cup. col. 4:12-19.

13 7. As noted by the Examiner, the principal difference between Freek
14 and the claimed subject matter is that Freek "is silent regarding the specifics
15 of the plug" which optionally may be used with the Freek lid. Examiner's
16 Answer 4, third full paragraph.

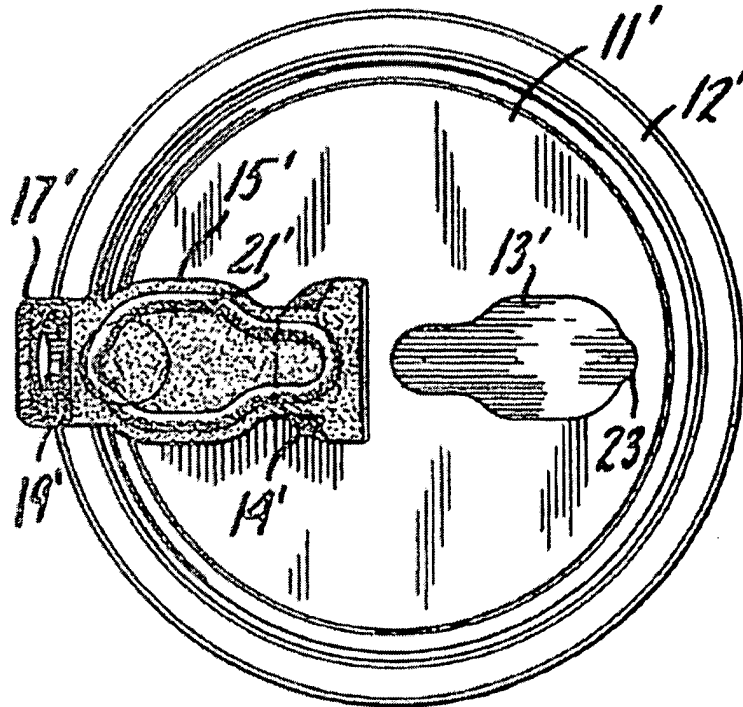
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Waterbury



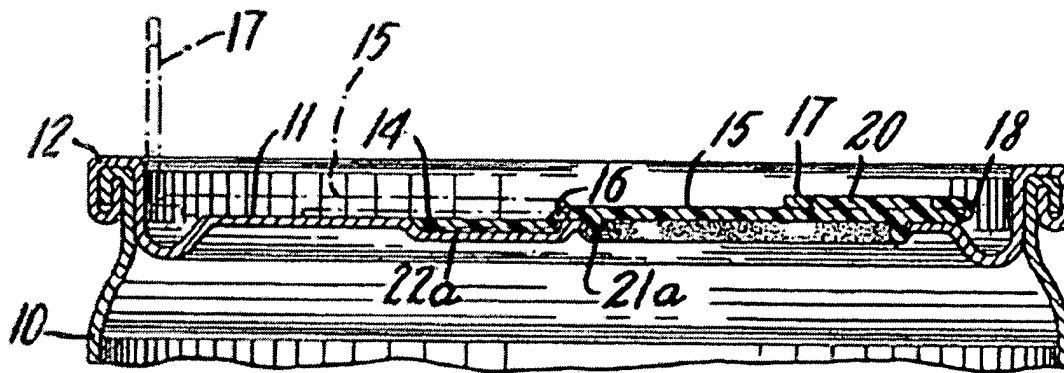
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Waterbury Fig. 4—Waterbury top of can showing lid in closed position



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Waterbury Fig. 7—top of can with lid in open position



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Waterbury Fig. 6—side view of top of can with lid in closed position

8. With reference to Figs. 4, 6 and 7, Waterbury describes an easy-to-open closure (tab) for containers, for example, sealed containers for food and beverages. col. 1:7-13.

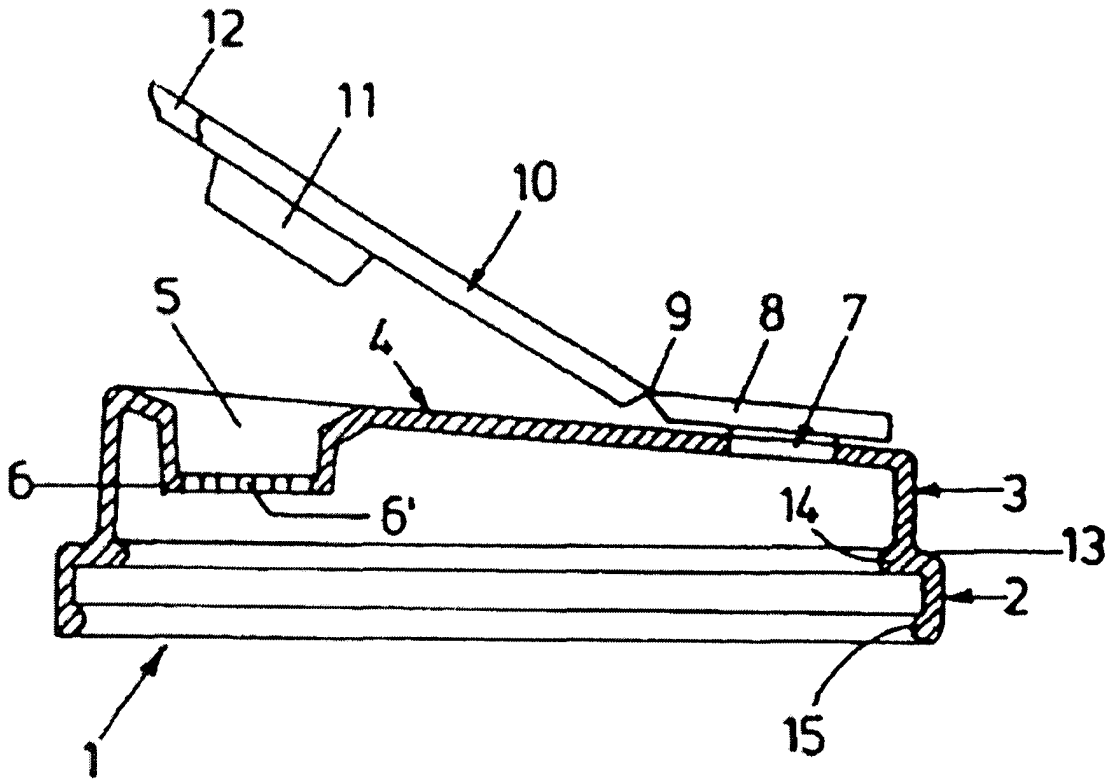
1 9. Waterbury describes a tab closure comprising a closure element
2 **15'** and mounting element **14'** connected by a hinge [Fig. 6 **16**]. col. 2:65
3 through col. 3:3 and col. 4:10-15.

4 10. The embodiment shown in Fig. 6 has a recess **22a** of substantially
5 the same shape and depth as the out configuration and thickness of mounting
6 element **14**. col. 4:3-6.

7 11. When the free end of closure element **15** is in a folded back
8 condition (see Fig. 2 not reproduced), a user may drink directly from the
9 container without having to discard the closure. col. 3:20-25.

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French Patent Application 2,736,620 (hereinafter referred to as "Aichert")



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Aichert Fig. 1—Aichert cup lid with pivoted cover section

1 12. With reference to an English language abstract in the record and
2 Fig. 1 , Aichert describes a cover 4 for use on the top of a can.

3 13. The lid has a pouring orifice 5 which can be sealed closed by a
4 pivoted cover section 10.

5 14. Pivoted cover section 10 is secured to cover 4 via catch [détente]
6 7.

7 15. Détente 7 is secured to cover 4 via a recess [not numbered].
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Mueller

FIG. 15

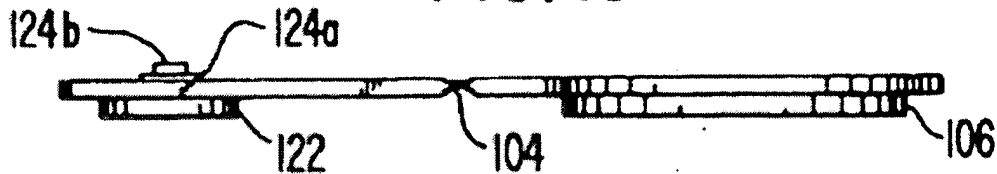
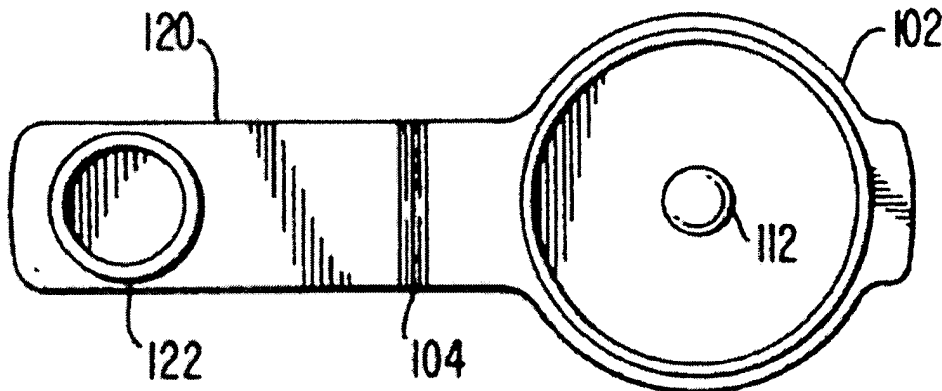


FIG. 16



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Mueller Figs. 15 & 16—Mueller stopper

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16. With references to Figs. 15-16, Muller describes a stopper with
two circular walls 106, 122 which serve as a means to seal openings in the

1 top of a plastic cup used for cold beverages. col. 1:10 and 15-16; col. 7:65
2 through col. 8:47.

3 17. The stopper has the same configuration as Dart's tab closure.

4
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DeMars

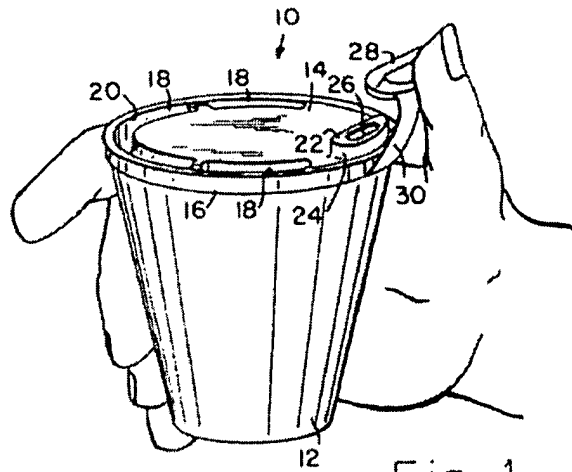


Fig. 1.

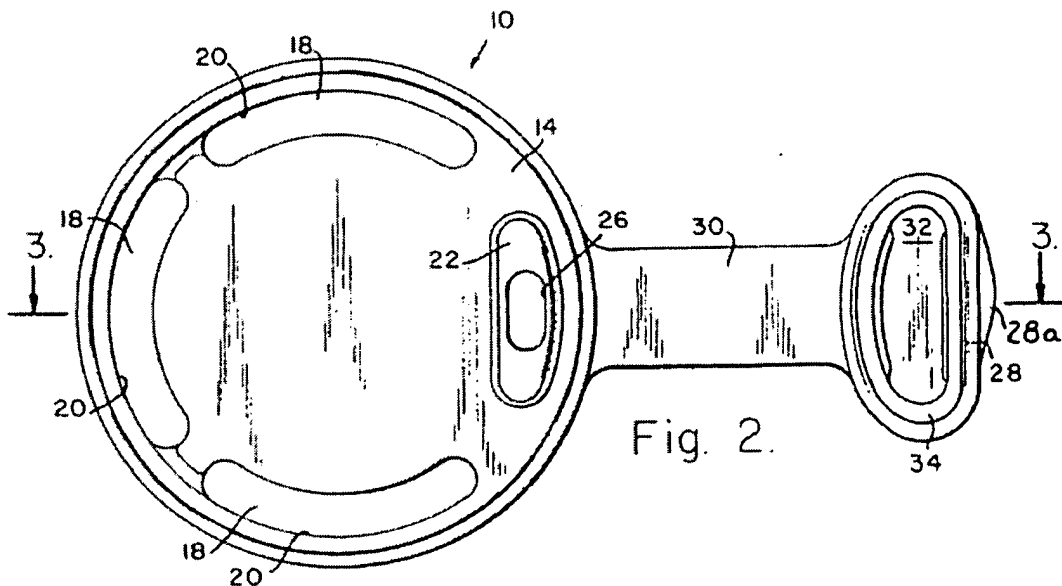


Fig. 2.

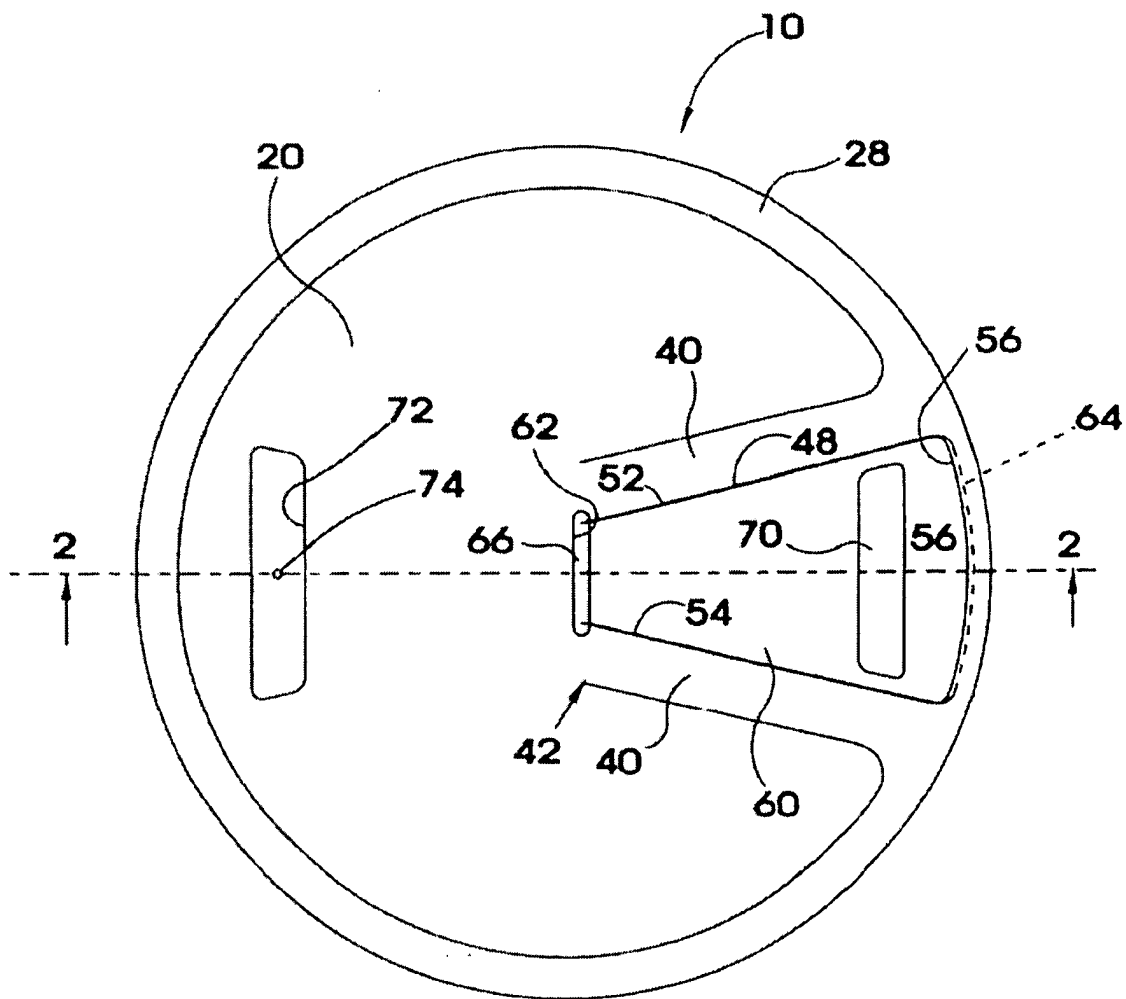
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DeMars Figs. 1-2—DeMars cup lid with resealable drink opening

1 18. With reference to Figs. 1-2, DeMars describes a lid 10 for a
2 container 12 having a drinking spout 22 and a cover 28 adapted to fit over
3 the spout in a friction-fit relationship to prevent spills. col. 2:45-47,
4 col. 2:67, and col. 3:11-20.

5
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Lane



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Lane Fig. 1—Lane cup lid

9 19. With reference to Fig. 1, Lane describes a cup lid 10 having a
10 peel-back opening 48. col. 2:37 and col. 3:7.

1 20. The peel-back opening has knob 70 which can be pressed into
2 recess 72 when the opening is in the open position. col. 3:40-49 and
3 col. 4:1-5 (describing Fig. 3 not reproduced in this opinion).

4 21. The Examiner found securing a plug within a recess in a lid to be
5 within the level of ordinary skill in the art and other art *e.g.*, Aichert,
6 describes disposable lids of various configurations having closure plugs for
7 removably closing a drink opening. (Office Action dated January 26, 2006,
8 pp. 4, 5).

9
10 Level of skill in the art

11 What one skilled in the art learns from the prior art, taken individually
12 and as a whole, is that Dart has used known elements in the cup lid art for
13 their intended purpose all the while achieving an expected result.

14 One skilled in the art would have known that a "plug" may be inserted
15 into a "recess" to hold the plug into a fixed (but releasable) position.

16 One skilled in the art would have known that a plastic lid could be
17 used on plastic and "styrofoam" cups of the kind commonly found in coffee
18 shops and fast food restaurants.

19 One skilled in the art would have known how to make a cup lid with a
20 drink opening which could be sealed and re-sealed through multiple cycles.

21 One skilled in the art would have known that there are various options
22 for combining the known elements shown in the prior art depending on a
23 particularized need.

24 One skilled in the art would know that plastic lids could be formed
25 using a thermoforming process.

26

1 **E. Principles of law**

2 A claimed invention is not patentable if the subject matter of the
3 claimed invention would have been obvious to a person having ordinary skill
4 in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct.
5 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co. of Kansas City*,
6 383 U.S. 1 (1966), 148 USPQ 459.

7 Facts relevant to a determination of obviousness include (1) the scope
8 and content of the prior art, (2) any differences between the claimed
9 invention and the prior art, (3) the level of skill in the art and (4) any
10 relevant objective evidence of obviousness or non-obviousness. *KSR*, 127
11 S. Ct. at 1734, 82 USPQ2d at 1389, *Graham*, 383 U.S. at 17-18.

12 A person having ordinary skill in the art uses known elements and
13 process steps for their intended purpose. *Anderson's-Black Rock, Inc. v.*
14 *Pavement Salvage Co.*, 396 U.S. 57 (1969) (radiant-heat burner used for its
15 intended purpose in combination with a spreader and a tamper and screed);
16 *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282 (1976) (the involved patent
17 simply arranges old elements with each performing the same function it had
18 been known to perform); *Dunbar v. Myers*, 4 Otto (94 U.S.) 187, 195 (1876)
19 (ordinary mechanics know how to use bolts, rivets and screws and it is
20 obvious that any one knowing how to use such devices would know how to
21 arranged a deflecting plate at one side of a circular saw which had such a
22 device properly arranged on the other side).

23 When multiple prior art references are used to reject a claim, then the
24 prior art references should be "analogous." Prior art is "analogous" when a
25 person having ordinary skill in the art would consider it relevant or related to

1 the invention sought to be patented. *Dann v. Johnston*, 425 U.S. 219, 229
2 (1976) (data processing system used in large business organization found to
3 analogous to inventor's data process system used in banking industry);
4 *Graham v. John Deere Co.*, 383 U.S. 1, 35 (1966) (where inventor was
5 attempting to solve mechanical closure problem, liquid containers having
6 pouring spouts found to be analogous to an inventor's pump spray
7 insecticide bottle cap); *Cuno Engineering Corp. v. Automatic Devices Corp.*,
8 314 U.S. 84,91-92 (1941) (thermostat to break circuit in a electric heater,
9 toaster or iron found to be analogous to a circuit breaker used in an
10 inventor's cordless cigar lighter); *Mast, Foos & Co. v. Stover Mfg. Co.*, 177
11 U.S. 485, 493 (1900) (device used in mills other than windmills held to be
12 analogous to inventor's use of same device in windmills); *In re Oetiker*, 977
13 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992) (if art is in the
14 field of applicant's endeavor or is reasonably pertinent to the particular
15 problem with which an inventor is concerned, then the art is "analogous").

16

17 **F. Analysis**

18

Examiner's § 103 rejection

19

The Examiner rejected the claims holding that a person having
20 ordinary skill in the art would have found it obvious to use the closure tab of
21 Waterbury in the cap of Freek.

22

The Examiner found that securing a plug within a recess in a lid to be
23 within the level of ordinary skill in the art and that other prior art references,
24 e.g., Aichert, describe disposable lids of various configurations having
25 closure plugs for removably closing a drink opening. (FF. 21)

26

1 On that basis, the Examiner found that one skilled in the art would
2 have known to use the closure tab in Waterbury as part of the lid in Freek.

3 While we accept the Examiner's use of Waterbury as describing the
4 sole known use of closure tabs on lids, we prefer to make our case for
5 obviousness under 35 U.S.C. § 103(a) using plural teachings of prior art tab
6 closures as found, e.g., in (1) Mueller, (2) Aichert, (3) De Mars and (4)
7 Lane. The criteria for combining references is not the number of references,
8 "but what they would have meant to a person of ordinary skill in the field of
9 the invention." *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888
10 (Fed. Cir. 1991).

11 We will affirm the Examiner's rejection of claims 3, 9-11, 27-29,
12 36-39, 44-50, 55-59, 63, 65-70, 75-77, 80-83, and 88-95 under 35 U.S.C.
13 § 103(a), but use additional prior art to support our holding of obviousness.

14 Thus our affirmance is of the Examiner's rejection under 35 U.S.C.
15 § 103(a) based on the combined disclosures of Freek, Waterbury, Mueller,
16 Aichert, De Mars and Lane.

17
18 *1. Scope and Content of the Prior art and Differences*

19 "[P]roof of what was old and in general use at the time of the alleged
20 invention...may be admitted to show what was then old, or to distinguish
21 what is new..." *Dunbar v. Myers*, 4 Otto (94 U.S.) 187, 199 (1876).

22 From Waterbury, Mueller and Aichert one skilled in the art knows the
23 scope and content of the prior art includes tab closures individually
24 connectable to a recess in a cap using a mounting plug connected at the

1 recess, and each tab closure having a drink plug resealably connected to a
2 drink opening in the cap.

3 The only differences between these prior art references and the
4 invention claimed by Dart are: (1) in Waterbury, lid **11** is made integrally
5 with the container **10** rather than being a separate piece, and (2) the lids in
6 Muller and Aichert are constructed so as to be reusable and are not
7 disposable *per se*, as the claims recite.

8 However, from De Mars and Lane one skilled in the art would have
9 appreciated that at the time of the invention it was known to fabricate a
10 disposable lid for a foam plastic coffee cup with a drink plug connected to it
11 using an integrally formed strap. (FF. 18, 19, 20).

12 From Freek one skilled in the art also would have appreciated the fact
13 that a disposable coffee cup lid made from a thermoformed plastic sheet was
14 known at the time of the invention and had all the structure recited in claims
15 83, 88 and 89, except for a tab closure to connect the drink plug to the cap.
16 (FF. 1-7)

17 Connecting the drink plug to a disposable plastic lid using a strap was
18 known at the time of the invention as taught by DeMars and Lane.

19 Thus, the knowledge of a person with ordinary skill in the art included
20 the know-how of making plug and recess connections, and resealable drink
21 openings using interlocking plugs (FF. 21) as further evidenced by Mueller
22 and Aichert, and Waterbury.

23
24
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1 2. *Dart is a Combination of Familiar Elements With a Predicable Result*

2 The combination of two known elements such as, a tab closure and a
3 domed-shaped disposable plastic cap with an opening in it, cannot constitute
4 patentable invention unless each element of the combination performs an
5 “additional or different function in the combination [other] than they
6 perform out of it.” *See, e.g., Great Atlantic & Pacific Tea Co. v.*
7 *Supermarket Equipment Corp.*, 340 U.S. 147, 152, 71 S. Ct. 127, 130
8 (1950). We find no evidence of any such additional or different function in
9 Dart's claimed invention vis-à-vis the prior art tab closures.

10 a. The Function of Dart's Tab Closure

11 The *Summary of Invention* in Dart describes the function of the tab
12 closure **14** as simply securing one end of the tab to the cap via the mounting
13 plug **50** and releaseably connecting the other end carrying the drink plug **54**
14 to the drink opening **42** such that “the drink plug is sized to be received
15 within the drink opening wherein the user can open and close the lid by
16 removing or inserting the drink plug from the drink opening.”
17 (Specification 4)

18 Dart's structure and corresponding function are found repeatedly in
19 the prior art.

20 b. Prior Art Tab Closures Function in the Same Way as Dart

21 The prior art tab closures of Waterbury, Mueller, and Aichert when
22 used in the lid of Freek do what they always have done in these prior art
23 devices, namely, to hold a drink plug in place through the intermediary of a
24 connecting strip connected to the cap when the plug is in an opened

1 condition to allow the drink opening to be resealed with the drink plug after
2 the contents are poured out.

3 In Waterbury, the tab closure has a mounting plug **14** (referred to as a
4 mounting element) and a drink plug **15** (referred to as a closure element)
5 connected by a hinge portion **16** (referred to as a hinge connection) in the
6 form of a strap (Waterbury, col. 2 ll. 67, 68, col. 3, ll.1). The mounting plug
7 in Waterbury is also inset within a recess **22a** formed in the lid **11** of a drink
8 container.⁶ Thus, when the free end of closure plug **15'** is in a folded back
9 condition, a user may drink directly from the container without having to
10 discard the closure, as done in Dart. (FF. 11).

11 In Mueller, the tab closure **100** (Fig. 16) has a mounting plug **122** and
12 a drink plug **102** connected by a hinge portion **120** in the form of a strap or
13 strip of material **120**. The drink plug **102** has the same configuration as
14 Dart's drink plug. (FF. 17). The cap **50** includes a recess (see Fig. 12, lead
15 line 12) which is sized to receive the mounting plug **122** therein so that the
16 drink plug **102** remains attached to the lid when the drink plug is in its open
17 condition allowing the contents to be poured out, again in a manner similar
18 to Dart. (Mueller, col. 3, ll. 49-53)

19 In Aichert, the tab closure **10** (Fig. 16) has a mounting plug **7** and a
20 drink plug **11** connected by a hinge portion **9** in the form of a strap or strip of
21 material. The lid **4** has a pouring orifice **5** which can be sealed closed by a
22 pivoted cover section **10** and opened to allow the contents to be poured out
23 while the closure tab remains attached to the cap **4**. (FF. 13) The closure tab

⁶ Waterbury describes its "lid is provided with a recess **22a** of substantially the same shape and depth as the outer configuration and thickness of the mounting element **14**." (Waterbury, Col. 4, ll. 3-6)

1 **10** is secured to cap **4** via catch détente **7** as the mounting plug **50** in Dart is
2 inset in the mounting recess **46** (FF. 14) to allow the drink opening to be
3 resealed by the attached drink plug.

4 We find that Dart's lid has no additional or different function vis-à-vis
5 these prior art tabs when used in connection with conventional lids, such as
6 found in Freek or Dart's cap **12**.

7

8 3. *Analogous Art*

9 We consider Waterbury, Mueller, Aichert, De Mars and Lane all to
10 be analogous art because each is reasonably pertinent to the problem with
11 which Dart was concerned. *See In re Gorman*, 933 F.2d 982, 986,
12 18 USPQ2d 1885, 1888 (any need or problem known in the field of
13 endeavor at the time of invention and addressed by the patent can provide a
14 reason for combining the elements in the manner claimed). *See KSR*, 127
15 S. Ct. at 1742, 82 USPQ2d 1385 at 1397.

16 The Dart lid attempts to solve the same problem as the prior art,
17 namely, reclosure of a drink opening once opened. Dart describes the
18 problem to be solved as providing a closure “that can be opened to dispense
19 a beverage and closed to effectively seal the container against spillage”
20 through multiple cycles (Br. 6, 7).

21 Likewise, each of the closures in Waterbury, Mueller, Aichert, Lane
22 and De Mars provide a hinge or strap portion connected to the lid to allow
23 the closure to be articulated between opened and closed positions over a
24 drink opening thereby dealing and resolving the same problem posed to
25 Dart.

1 Appellants argue Waterbury is nonanalogous art because it deals with
2 a closure for a soda can and “not a recloseable lid for use on a cup”, and thus
3 deals with a completely different problem. (Br. 6) But, the prior art teaches
4 that a lid, such as described by Dart, may cap a soda can to provide a
5 recloseable feature for the can once opened. More specifically, Aichert
6 discloses a separate recloseable plastic lid 4 used on a soda can (FF. 12-15),
7 further evidencing that liquid containers, such as a cup or a can, share the
8 same reclosure problems.

9 Appellants further argue, “the problem to be solved by
10 ... Waterbury... is having a separate flip-top tab closure which must be
11 discarded after the can has been opened.” (Br. 6) To the contrary,
12 Waterbury discloses the closure as “resealable to store unused contents”
13 (Waterbury col. 1, ll. 35), and furthermore contemplates plural embodiments
14 (Figs. 2,3,7) for maintaining the closure in a “folded back” condition to hold
15 it in a “fully open position while the contents are discharged”. (Waterbury,
16 col. 3, ll. 5-7, 19-23) Thus, Appellants’ assertion of Waterbury being
17 limited to a closure “which must be discarded after the can has been opened”
18 (Br. 6) is believed to be incorrect.

19

1 Finally, *Graham*⁷ addressed a strikingly similar non-analogous art
2 issue as between two liquid containers each with a different closure device
3 and held the containers to be pertinent to one another. The Court reasoned
4 that the devices were pertinent to each other because both seek to solve the
5 same “mechanical closure problem.”⁸ Waterbury, Mueller, Aichert, Lane
6 and De Mars all deal with a mechanical closure in a liquid containers as does
7 Dart, and thus must deal with the same mechanical closure problems.

8

9 *4. The Motivation Argument*

10 Appellants assert the “Examiner has failed to identify any motivation,
11 suggestion, or teaching of the desirability of combining Freek '837 with
12 Waterbury '797 to arrive at Applicants' invention.” (Br. 9) To the extent
13 that Dart argues that an *explicit* motivation, suggestion, or teaching in the
14 art, the argument has been foreclosed by *KSR Int'l Co. v. Teleflex Inc.*, 127
15 S. Ct. 1727, 82 USPQ2d 1385 (2007). In *KSR*, the Court characterized the
16 teaching, suggestion, motivation test as a “helpful insight” but found that
17 when it is rigidly applied, it is incompatible with the Court’s precedents.

⁷ *Graham* involved two patents: (1) the familiar Graham plow patent and (2) a Scroggins dispenser patent. The Scroggins patent is addressed in the *Calmar, Inc. v. Cook Chemical Co.*, and No. 43, *Colgate-Palmolive Co. v. Cook Chemical Co.* part of the Graham opinion and relates to U.S. Patent 2,870,943 directed to a plastic finger sprayer with a ‘hold-down’ lid used as a built-in dispenser for containers or bottles packaging liquid products, principally household insecticides.

⁸ As between closure devices for liquid containers, the Court held that these devices are pertinent because, “closure devices in such closely related art as pouring spouts for liquid containers are at the very least pertinent references.” *Graham*, 383 U.S. at 36, 86 S. Ct 684 at 703.

1 *KSR*, 127 S. Ct. at 1741, 82 USPQ2d at 1396. The holding in *KSR* makes
2 clear that there is no longer, if there ever was, a rigid requirement for finding
3 a reason to combine teachings of the prior art.

4 Helpful insights, however, need not become rigid
5 and mandatory formulas; and when it is so applied,
6 the TSM test is incompatible with our precedents.
7 The obviousness analysis cannot be confined by a
8 formalistic conception of the words teaching,
9 suggestion, and motivation, or by overemphasis on
10 the importance of published articles and the
11 explicit content of issued patents. *KSR*, 127 S. Ct.
12 at 1741, 82 USPQ2d at 1396.

13 Rather, the application of common sense may control the
14 reasoning to combine prior art teachings. *See Id.* at 1742, 1397.

15 The practice of attaching a strap to an item to prevent it from being
16 lost is familiar to everyone and has long been used in the simplest
17 applications. It is common sense, for example, to attach these items to a
18 holder to keep them from being lost, (1) a surf board to the surfer's ankle,
19 (2) reading glasses to the neck of the reader, (3) a chuck key to a drill, (4) a
20 fire hydrant hose opening cover to the hydrant, (5) car gas caps to a car, (6)
21 golf club covers one to another, (7) baby pacifiers to a baby's shirts, (8) kids
22 gloves to a winter coat, (9) keys to a belt, etc. Thus, common sense acquired
23 by everyday experience would dictate that the plug⁹ or cover to the drink
24 opening disclosed in *Freek* at column 3, lines 63-65, would somehow be
25 attached to the lid through the intermediary of a strap or lanyard in order to
26 prevent the plug from being lost when the contents are not being consumed.

⁹ Appellants argue (Br. 10) that the Examiner has mischaracterized the word "plug" from *Freek*. But, *Freek* in column 3, line 63 explicitly states that a "plug" may cover the drink opening. The term "plug" thus speaks for itself.

1 5. *New Grounds of Rejection:*

2
3 Indefiniteness rejection

4 Claims 84, and claims 85-87 which depend directly or indirectly from
5 claim 84¹⁰, are rejected under 35 U.S.C. § 112, second paragraph, as being
6 indefinite.

7 Our principal concern with this is Dart's use of the word "chamber" in
8 the claim.

9 While the word chamber appears in some of the original claims, it is
10 not defined in the specification.

11 Accordingly, we give the word its ordinary meaning. One meaning of
12 chamber is: a natural or artificial enclosed space or cavity. *Webster's*
13 *Collegiate Dictionary Tenth Edition (1996)*.

14 The Waterbury mounting element is described as having substantially
15 the same shape and depth as the recess into which it placed. Thus, the
16 mounting element and recess do not have to have precisely complimentary
17 shapes. Nor has Dart established that a mounting element and recess made
18 by a thermoforming process would be expected to be precisely
19 complimentary. To the extent that there is any opening between the
20 mounting element and the recess in a device made by a third-party, we do
21 not think Dart is entitled to infringement relief against that party based on
22 the broadest reasonable interpretation of "chamber" in claim 84 and an
23 attempt to maneuver the invention of claim 84 to cover devices falling

¹⁰ Claims 40-43, 71-74 while not dependent on claim 84 introduce the "chamber" as a dependent claim feature and thus are also subject to the 35 U.S.C. § 112, second paragraph rejection.

1 within the scope of rejected claims 83 and 88-89 and claims dependent
2 thereon.

3 However, it is probably the case that Dart intends to cover a
4 "chamber" of the type described in ¶¶ 1053 and 1054 as being a "gap." The
5 gap is created by *intentionally* designing the depth of the mounting element
6 to be shorter than the depth of the recess so that a "gap" is created for the
7 purpose of creating a reservoir to keep the top of the lid dry. In our view,
8 the features of the "gap" are not necessarily translated into claim 84 through
9 the use of "chamber."

10 If this were an infringement case, we might be inclined to construe
11 "chamber" as being the "gap" described in ¶¶ 1053 and 1054. However, this
12 is not an infringement case. The application is pending before the Patent
13 Office and time to avoid any possible problem in the event claim 84 is
14 issued in a patent is while the application is pending. To put off a claim
15 interpretation issue on to the public and a district court is not an efficient
16 implementation of the patent system. *See e.g., Graham*, 383 U.S. 18 (to
17 await litigation is—for all practical purposes—to debilitate the patent
18 system). We are confident that Dart can probably amend claim 84 in such a
19 manner as to (1) more clearly set out what Dart regards as its "chamber"
20 invention, (2) overcome our concerns and (3) would meet with the approval
21 of the Examiner. We note that the Examiner has not rejected claim 84 over
22 the prior art. We likewise know of no basis for rejecting the claim over the
23 prior art, provided it is further limited consistent with the views set out
24 above.

25

1 *Rejection of previously allowed claims*

2 In light of foregoing, we reject claims 4-7, 31-33, 64, 78, and 79 under
3 35 U.S.C. 103(a) as being unpatentable over the combined teachings of
4 Freek, Waterbury, Mueller, Aichert, De Mars, and Lane.

5 Claims 4, 5, 6, 31, 32, 33, 78, and 79 all cover the feature of a drink
6 opening in a lid having a well and a drink plug received within the well by
7 press fitting it to the well.

8 Freek teaches a plug or closure formed within the drink opening 20
9 which is removed prior to consumption (Freek, col. 3 ll. 63-65). Further, we
10 read the opening in the sheet material forming the lid in Freek as a “well”.
11 *Webster’s Collegiate Dictionary Tenth Edition (1996)* defines “well” *inter*
12 *alia*, as 4: an open space extending vertically through floors of a structure;
13 6b: a deep vertical hole. Since the opening extends though the entire
14 thickness of the sheet material, it is read as a “deep” hole.

15 Waterbury, among others, teach a closure element 31 having a
16 depending portion 36 complementarily shaped with the pour opening in the
17 lid so as to create a reusable press fitting closure. (Waterbury, Col. 5,
18 ll. 30-34)

19 One having ordinary skill in the art would modify the opening 20 in
20 Freek to include the reusable press fit closure of Waterbury for the reasons
21 set forth *supra*. Regarding the periphery well wall recited in claims 6 and
22 33, we note the thickness of the thermal plastic material forming the lid 10 in
23 Freek is read as the periphery well wall.

24 The recitation in claim 7 of a bottom wall in the opening is met by the
25 teaching in Freek of a bottom wall extending from the peripheral wall in the

1 lugs 42 formed in lid 10 which, if located at the bottom of the drink opening
2 20, would similarly provide a stop surface for the drink plug, as it does
3 between successively stacked lids.

4 The recitation in claim 64 of the top wall reduced at opposite ends of
5 the drink opening is met by the portions of the wall adjacent the drink
6 opening 20 in Freek causing a reduced surface area of material.

7

8 **G. Conclusions of law**

9 Appellant has not sustained its burden on appeal of showing that the
10 Examiner erred in rejecting the claims on appeal as being unpatentable under
11 35 U.S.C. § 103(a) over the prior art.

12 Claims 3, 9-11, 27-29, 36-39, 44-50, 55-59, 63, 65-70, 75-77, 80-83,
13 and 88-95 (claims on appeal) are unpatentable under 35 U.S.C. § 103(a).

14 Claim 4-7, 31-33, 64, 78, and 79 (which are not on appeal) are also
15 unpatentable under 35 U.S.C. § 103(a) over the prior art.

16 Claim 84 and claims 85-87 which depend from claim 84, as well as
17 claims 40-43 and 71-74, are unpatentable under the second paragraph of
18 35 U.S.C. § 112.

19 On the record before us, Dart is not entitled to a patent containing any
20 of the pending claims in the application on appeal.

21

22 **H. Decision**

23 Upon consideration of the record, and for the reasons given, it is

24 ORDERED that the decision of the Examiner rejecting
25 claims 3, 9-11, 27-29, 36-39, 44-50, 63, 65-70, 75-77, 80-83, and 88-95 over
26 the prior art is *affirmed*.

1 FURTHER ORDERED that the appeal is dismissed as to claims
2 49-59.

3 FURTHER ORDERED that previously allowed claims and
4 claims previously indicated as containing allowable subject matter, *i.e.*,
5 claims 84-87, 40, 41, 42, 43, and 71-74 are rejected as being unpatentable
6 under 35 U.S.C. § 112, second paragraph, as being indefinite.

7 FURTHER ORDERED that previously allowed claims 4-7,
8 31-33, 64, 78, and 79 are rejected as being unpatentable under 35 U.S.C.
9 § 103(a).

10 FURTHER ORDERED that since our application of the
11 references differs from that of the Examiner and we have cited additional
12 prior art, and because we have rejected previously allowed claims, our
13 affirmance and rejection of objected to and allowed claims are designated as
14 a new rejection. 37 C.F.R. § 41.50(b) (2006).

15 FURTHER ORDERED that our decision is not a final agency
16 action.

17 FURTHER ORDERED that within **two (2) months** from the
18 date of our decision Appellants may further prosecute the application on
19 appeal by exercise one of the two following options:

20 1. Request that prosecution be reopened by submitting
21 an amendment or evidence or both. 37 C.F.R. § 41.50(b)(1) (2006).

22 2. Request rehearing on the record presently before the
23 Board. 37 C.F.R. § 41.50(b)(2) (2006).

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Application 10/065,722

1 FURTHER ORDERED that the time for taking action under
2 either 37 C.F.R. §41.50(b)(1) or 41.50(b)(2) is not extendable under the
3 provisions of 37 C.F.R. § 1.136(a) (2006).

4 AFFIRMED-IN-PART and DISMISSED-IN-PART
5 ALLOWED CLAIMS REJECTED
6 (37 C.F.R. § 41.50(b) (2006))
7
8

JRG/vsh

9 MCGARRY BAIR PC
10 32 Market Ave. SW
11 SUITE 500
12 GRAND RAPIDS, MI 49503

Appendix 1

Appeal 2007-1325
Application 10/065,772

Pending Claims

(Independent claims in bold)

| | Claim | Status |
|----|-------|--------------|
| 1 | | |
| 2 | | |
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| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
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| 10 | | |
| 11 | | |
| 12 | 3 | Rejected—103 |
| 13 | 4 | Objected |
| 14 | 5 | Objected |
| 15 | 6 | Objected |
| 16 | 7 | Objected |
| 17 | 9 | Rejected—103 |
| 18 | 10 | Rejected—103 |
| 19 | 11 | Rejected—103 |
| 20 | 27 | Rejected—103 |
| 21 | 28 | Rejected—103 |
| 22 | 29 | Rejected—103 |
| 23 | 31 | Objected |
| 24 | 32 | Objected |
| 25 | 33 | Objected |
| 26 | 36 | Rejected—103 |
| 27 | 37 | Rejected—103 |
| 28 | 38 | Rejected—103 |
| 29 | 39 | Rejected—103 |

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| | | |
|----|----|----------------------|
| 1 | 40 | Objected |
| 2 | 41 | Objected |
| 3 | 42 | Objected |
| 4 | 43 | Objected |
| 5 | 44 | Rejected—103 |
| 6 | 45 | Rejected—103 |
| 7 | 46 | Rejected—103 |
| 8 | 47 | Rejected—103 |
| 9 | 48 | Rejected—103 |
| 10 | 49 | Rejected—112 and 103 |
| 11 | 50 | Rejected—112 and 103 |
| 12 | 51 | Rejected—112 |
| 13 | 52 | Rejected—112 |
| 14 | 53 | Rejected—112 |
| 15 | 54 | Rejected—112 |
| 16 | 55 | Rejected—112 and 103 |
| 17 | 56 | Rejected—112 and 103 |
| 18 | 57 | Rejected—112 and 103 |
| 19 | 58 | Rejected—112 and 103 |
| 20 | 59 | Rejected—112 and 103 |
| 21 | 63 | Rejected—103 |
| 22 | 64 | Objected |
| 23 | 65 | Objected |
| 24 | 66 | Objected |
| 25 | 67 | Objected |

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| | | |
|----|-----------|--------------|
| 1 | 68 | Rejected—103 |
| 2 | 69 | Rejected—103 |
| 3 | 70 | Rejected—103 |
| 4 | 71 | Rejected—103 |
| 5 | 72 | Objected |
| 6 | 73 | Objected |
| 7 | 74 | Objected |
| 8 | 75 | Rejected—103 |
| 9 | 76 | Rejected—103 |
| 10 | 77 | Rejected—103 |
| 11 | 78 | Objected |
| 12 | 79 | Objected |
| 13 | 80 | Rejected—103 |
| 14 | 81 | Rejected—103 |
| 15 | 82 | Rejected—103 |
| 16 | 83 | Rejected—103 |
| 17 | 84 | Allowed |
| 18 | 85 | Allowed |
| 19 | 86 | Allowed |
| 20 | 87 | Allowed |
| 21 | 88 | Rejected—103 |
| 22 | 89 | Rejected—103 |
| 23 | 90 | Rejected—103 |
| 24 | 91 | Rejected—103 |
| 25 | 92 | Rejected—103 |

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| | | |
|---|----|--------------|
| 1 | 93 | Rejected—103 |
| 2 | 94 | Rejected—103 |
| 3 | 95 | Rejected—103 |