

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LOUIS LAGLER

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Appeal 2007-0672  
Application 10/399,702  
Technology Center 3700

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Decided: June 29, 2007

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*Before:* WILLIAM F. PATE, III, TERRY J. OWENS and MURRIEL E. CRAWFORD, *Administrative Patent Judges.*

CRAWFORD, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 (2002) from a final rejection of claims 11 to 35. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

Appellant invented a closure having a closure body made of a first plastic material and a sealing element having a deformable collar made of a second flexible plastic material (Specification 1).

Claim 11 under appeal reads as follows:

11. A closure for a package of potable beverages having an opening with a neck rim, said closure having a closure body made of a first plastic material and a sealing element having a deformable collar made of second flexible plastic material protruding radially inwardly to be releasably engaged with the neck rim of the opening, said collar having a pressure surface exposed to inner pressure, said collar in a closed position responding to the inner pressure by deforming in a manner such that said collar becomes increasingly supported on the neck rim and sealingly closes the opening.

The Examiner rejected claims 11 to 35 under 35 U.S.C. § 112, second paragraph.

The Examiner rejected claims 11 to 21 and 24 to 35 under 35 U.S.C. § 102(b) as anticipated by Theis.

The Examiner rejected claims 11, 12, and 35 under U.S.C. § 102(b) as anticipated by Roeder.

The Examiner rejected claims 11 to 13, 16, 18, 20, 21, and 23 under 35 U.S.C. § 103(a) over Krueger.

The Examiner rejected claims 11, 12, 22, 23, and 35 under 35 U.S.C. § 103 over Roeder.

The Examiner rejected claims 11 to 18, 20, 21, 23 to 30, 33, and 35 under 35 U.S.C. § 103 over Glover in view of Roeder.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Roeder	US 2,324,648	Jul. 20, 1943
Krueger	US 2,582,489	Jan. 15, 1952

Glover	US 4,054,221	Oct. 18, 1977
Theis	EP 0 911 273 A1	Apr. 28, 1999

Appellant contends that the Examiner's rejection under 35 U.S.C. §112, second paragraph is unfounded.

Appellant further contends that none of Theis, Roeder or Krueger discloses a collar that protrudes inwardly and has a pressure surface exposed to inner pressure such that the collar responds to pressure by deforming and becoming increasingly supported on the neck rim of a container and sealingly closing the opening in the container.

Appellant also contends that there is no reason to modify the Roeder device to include ribs instead of beads. The Examiner takes Official Notice of the equivalence of ribs and beads for their use in the closure art and holds that the selection of any of these known equivalents to reinforce a structural element would be within the level of ordinary skill in the art.

Appellant also argues that there is no evidence to modify the Roeder reference such that the collar has a shore hardness in the region of approximately 20 to approximately 80 shore A. The Examiner contends that it was within the skill of a person of ordinary skill in the art at the time the invention was made to select an optimum hardness value for the sealing element.

Appellant contends that Glover does not disclose a hinge and that if the teachings of Glover and Roeder were combined as suggested by the Examiner such would destroy the operation of Glover.

## ISSUES

(1) The first issue is one of claim construction, i.e. is the claimed subject matter directed to a closure or a closure in combination with a container?

(2) Has Appellant shown that the Examiner erred in holding that claims 11 to 35 are unpatentable under 35 U.S.C. § 112, second paragraph?

(3) Has Appellant shown that the Examiner erred in finding that the disclosures of Theis and Roeder disclose the invention as claimed and that Krueger disclosing the invention as claimed except for the material of the sealing element?

(4) Has Appellant shown that the Examiner erred in taking Official Notice of the equivalence of ribs and beads for their use in the closure art and holding that the selection of any of these known equivalents to reinforce a structural element would be within the level of ordinary skill in the art?

(5) Has Appellant shown that the Examiner erred in finding that Glover discloses a hinge?

(6) Has the Appellant shown that the Examiner erred in finding that modifying the device disclosed in Glover with the teachings of Roeder would not have destroyed the operation of Glover?

(7) Has the Appellant shown that the Examiner erred in holding that it would have been within the person of ordinary skill to select an optimum shore hardness value for the collar?

## FINDINGS OF FACT

Appellant invented a closure that includes a sealing element that has a shore hardness, which preferably lies in the region of 20 to 80 shore A

(Specification p. 2). Appellant does not disclose that this particular hardness range produces unexpected results.

Claim 11 is directed to a closure having a closure body made of a first plastic material and a sealing element, having a deformable collar made of a second plastic material, and protruding radially inwardly.

Claim 11 also recites that the sealing element has a pressure surface exposed to inner pressure.

This discloses a closure 10 having a closure body made of a first plastic material (col. 3, ll. 52-53). The closure 10 includes a sealing element having a deformable collar 48 made of a second plastic material (col. 4, ll. 44 to 46). The sealing element or gasket 48 has an elongate member 70 that protrudes radially inwardly (Figure 7).

Gasket 48 is disposed of a rubber-like thermal plastic elastomer and is deformable. Elongate member 78 is capable of releasably engaging the rim 58 of the container (Figure 7). The elongate member 70 has a surface (the surface in Figure 7 that is labeled "70") that is capable of being exposed to pressure within the container and were the surface exposed to pressure in an outward direction (in the direction of the arrow pointing the "70") the elongate member 70 would deform in a manner such that the collar becomes increasingly supported on the neck rim of the container and sealingly closes the opening.

Roeder discloses closure 18 having a closure body that includes a sealing element having a deformable collar (page 2, ll. 3 to 12). The collar has an annular gasket 25 with a portion that protrudes radially inwardly

(Figure. 1). The collar is composed of a flexible material of a certain undisclosed shore hardness.

The gasket 25 releasably engages the opening in the container and deforms and moves outwardly when exposed to pressure in the container so as to be increasingly supported on the rim of the opening (Page 2, ll. 9 to 11).

Krueger discloses a closure 12 having a closure body that includes a sealing element 19 having a deformable collar (col. 3, ll. 34 to 44). The sealing element 19 flexes so as to protrude inwardly in the vertical direction (col. 3, ll. 19 to 22) and is capable of releasably closing a container. The sealing element 19 also includes two portions or legs that protrude from the rim of the container radially inwardly (Figure 2). The sealing element 19 includes several surfaces that are capable of being exposed to pressure within a container.

The collar 20 engages the neck rim of an opening in container 10 when the container is closed (Figure 2). As pressure builds up in the container the deformable collar is forced downwardly and thereby the collar is increasingly supported on the neck rim and sealingly closes the opening (col. 3, ll. 34 to 49).

Appellant has not contested the Examiner's holding that it would have been obvious to a person of ordinary skill in the art at the time of the invention to form the closure body of Krueger of any desired plastic material on the basis of its suitability for the intended use as a matter of obvious design choice.

Glover discloses a closure having a flexible strap 20 that connects an upper portion of the closure with a lower portion of the closure so that the

upper portion of the closure can swing between an open and closed position (Figures. 1 and 2). As the strap 20 connects the upper and lower portions of the closure so that the upper portion of the closure can swing between an open and closed position, strap 20 is a hinge as broadly recited in claim 22.

The placement of a sealing element such as element 25 as described in Roeder, on the hinged closure disclosed in Glover would provide added sealing ability to the Glover closure and would not destroy the operation of the Glover closure.

## PRINCIPLES OF LAW

### Indefiniteness

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. *In re Johnson*, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph, is whether the claims meet the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. Some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the

examiner might desire. If the scope of the invention sought to be patented cannot be determined from the language of the claims with a reasonable degree of certainty, a rejection of the claims under 35 U.S.C. § 112, second paragraph, is appropriate.

Thus, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. As stated above, if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. *See Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992).

#### Anticipation

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984), it is only necessary for the claims to “‘read on’ something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or ‘fully met’ by it.”

It is well settled that apparatus claims must distinguish over prior art apparatus by the structure defined by the claims, and not by a process or function performed by the apparatus. A prior art apparatus having the same

or obvious structure as a claimed apparatus renders a claimed apparatus unpatentable under Section 102 as long as it is capable of performing the claimed process or function. *In re Yanush*, 477 F.2d 958, 959, 177 USPQ 705, 706 (CCPA 1973); *Ex Parte Masham*, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Int. 1987).

### Official Notice

The Appellant may challenge Official Notice taken by the examiner and demand production of evidence in support thereof, provided such challenge is accompanied by adequate information or argument that, on its face, creates a reasonable doubt regarding the circumstances justifying the official notice. See *In re Boon*, 439 F.2d 724, 728, 169 USPQ 231, 234 (CCPA 1971).

### Obviousness

Anticipation is the epitome of obviousness See *In re Skoner* 517 F.2d 947, 950, 186 USPQ 80, 82 (CCPA 1975); *In re Pearson*, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974).

The discovery of an optimum value of a result effective variable (in this case, the optimum ) is ordinarily within the skill of the art. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980) and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). As stated in *In re Huang*, 100 F.3d 135, 139, 40 USPQ2d 1685, 1688 (Fed. Cir. 1996):

This court and its predecessors have long held, however, that even though applicant's modification results in great improvement and utility over the prior art, it may still not be

patentable if the modification was within the capabilities of one skilled in the art, unless the claimed ranges “produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art.”

Additionally, as stated in *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990):

The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . These cases have consistently held that in such a situation, the applicant must show that the particular range is *critical*, generally by showing that the claimed range achieves unexpected results relative to the prior art range [citations omitted].

## ANALYSIS

### Claim construction

Claim 11 of the instant application recites: “a closure for a package of portable beverages having an opening with a neck rim.” We construe the phrase “for a package of portable beverages having an opening with a neck rim” to be language of intended use. Therefore, claim 11 is directed to a closure having a closure body made of a first plastic material and a sealing element having a deformable collar made of a second plastic material that protrudes inwardly. However, claim 11 further recites that the collar of the closure protrudes inwardly:

. . . to be releasably engaged with the neck rim of

the opening....having a pressure surface exposed to inner pressure, said collar in a closed position responding to the inner pressure by deforming in a manner such that said collar becomes increasingly support on the neck rim and sealingly closes the opening.

As such, we construe independent claim 11 to be directed to a closure with a collar that is able to function so that it can be releasably engaged with the neck rim of the opening of a container. In addition, if there is pressure within the container, a surface of the collar is capable of being exposed to the pressure in the container. In response to pressure in the container, the collar deforms in a manner such that the collar becomes increasingly supported on the neck rim and sealingly closes the opening.

Independent Claims 24, 33 and 35 have similar language and thus are similarly construed to be directed to a closure which includes a sealing element having a deformable collar protruding radially inwardly. The collar of the closure is capable of being releasably engaged with the neck rim of the opening of a container. The collar has a surface that is capable of being exposed to pressure inside a container. In response to pressure in the container, the collar deforms in a manner such that the collar becomes increasingly supported on the neck rim and is capable of sealingly closing a container.

Rejection under 35 U.S.C. §112

The Examiner is of the opinion that the subject matter of claims 11 to 35 is unclear because it is not clear when the closure sealingly closes the opening.

We have construed the language to be directed to a closure which is capable of sealingly closing an opening. Therefore, we do not find the claims 11 to 35 confusing in this respect and thus will not sustain this rejection.

In regard to the Examiner contention that it is unclear what structure is represented by the recitation of “hammer like” in claim 32. In our view, a person of ordinary skill in the art would find this language clear in view of the disclosure in the specification on page 4 of a hammer-like projection 25 in conjunction with the depiction in Figure 4 of projection 25. As such, we will not sustain the rejection as it is directed to claim 32.

We are also of the view that even though the phrase “the inner surface of the sealing element” in claim 14, lacks explicit antecedent basis, it is nonetheless clear that the claim is referring to the inner surface of the sealing element recited in claim 11. Therefore, we will not sustain the rejection as it is directed to claim 14.

Theis, Roeder and Krueger and Glover

We have determined that the independent claims are directed to a closure that is capable of performing the functions recited in independent claims 11, 24, 33 and 35. We have found that Theis discloses a closure that

is capable of performing the functions recited in independent claims 11, 24, 33, and 35.

Therefore, we will sustain the rejection of claims 11, 24, and 33 under 35 U.S.C. § 102(b) as being anticipated by Theis. We will also sustain the rejection as it is directed to claims 12 to 21 and 25 to 35 because the Appellant has not argued the separate patentability of these claims.

We have found that Roeder discloses a closure that is not only capable of performing the functions recited in claims 11 and 35 but is disclosed as performing these functions.

Therefore, we will sustain the Examiner's rejection of claim 11 under 35 U.S.C. § 102(b) as being anticipated by Roeder. We will also sustain this rejection as it is directed to claim 12 because the Appellant has not argued the separate patentability of this claim.

We will also sustain the rejection of claims 11, 12, and 35 under 35 U.S.C. § 103 as being unpatentable over Roeder for the same reasons stated above in regard to the anticipation rejection noting that anticipation is the epitome of obviousness.

We have found that Krueger discloses a closure not only capable of performing the functions recited in claim 11 but is discloses as performing these functions. We note that, contrary to the contentions of the Appellant, all that is necessary is that Krueger discloses a device that "reads on" the device claimed. It is not necessary that the Examiner prove that the Krueger device obeys the Ideal Gas Law as understood by the Appellant. Therefore,

we will sustain the rejection of claim 11 under 35 U.S.C. § 103 as being unpatentable over Krueger.

We will also sustain this rejection as it is directed to claims 12, 13, 16, 18, 20, and 21, because the Appellants have not argued the separate patentability of these claims.

We will sustain the rejection of claims 11 to 14, 16 to 18, 20, 21, 24 to 30 and 35 as being unpatentable over Glover in view of Roeder, because we have determine that the provision of the sealing element disclosed in Roeder would not have destroyed the operation of the Glover device but rather would have added additional sealing ability to the Glover device.

The argued dependent claims

The Appellant has argued the separate patentability of claims 15, 22 and 23, and, therefore, we will address these claims individually.

Claim 15 recites that the upper and lower part of the closure is connected via a hinge. We have found that Glover discloses the recited hinge and that the placement of the Roeder sealing element will not destroy the operation of the Glover closure. Therefore, we will sustain the rejection of claim 15 under 35 U.S.C. § 103 as being unpatentable over Glover in view of Roeder.

Claim 22, which recites that a plurality of ribs support the collar differs from the disclosure of Roeder in that Roeder discloses a bead rather than a collar to support the collar. The Appellant has not challenged the Examiner's taking of Official Notice of the equivalence of ribs and beads for their use in the closure art and the finding that the selection of these equivalents to reinforce a structural element would be within the level of

ordinary skill in the art. Rather, Appellant argues that there is no motivation to modify the Roeder closure so as to include a plurality of ribs to support the collar. However, the rejection is not based on an explicit motivation to substitute ribs for a bead but rather on the equivalence of ribs and beads and therefore the interchangeability of beads and ribs. In the absence of a challenge to the Examiner's taking of Official Notice, we will sustain the rejection of claim 22 under 35 U.S.C. § 103 as being unpatentable over Roeder.

Claim 23 recites that the collar of the sealing device has a hardness in the region of approximately 20 to approximately 80 shore A. The sealing element disclosed in Roeder has some undisclosed shore hardness. The Appellant has not shown that the particular shore hardness claimed would result in unexpected results. We have found that it is within the skill of a person of ordinary skill to find the optimum shore hardness for the collar. Therefore, we will sustain the Examiner's rejection of claim 23 under 35 U.S.C. § 103 as being unpatentable over Roeder. We will also sustain the rejection of claim 23 under 35 U.S.C. §103 as being unpatentable over Krueger for the reasons stated here regarding the shore hardness and for the reasons stated above in our discussion above of this rejection as it is directed to claim 11.

#### DECISION

On the record before us, Appellant has shown error in the rejection of claims 11 to 35 under 35 U.S.C. §112, second paragraph, and we will therefore not sustain this rejection. The Appellant has not shown error in the

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Examiner's rejections under 35 U.S.C. §§ 102 and 103, and we will therefore sustain these rejections of claims 11 to 35. The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

jlb

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