UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PHILIP J. LUCAS and LEO W. MAYER

Appeal 2007-1012
Application 09/809,678
Technology Center 3600

Decided: November 30, 2007

Before HUBERT C. LORIN, MURRIEL E. CRAWFORD, and
MICHAEL W. O'NEILL, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Lucas et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-13. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.[1]

THE INVENTION

The Appellants' invention is directed to a support structure for carrying a load of packages. (Specification 2:22.) The support structure is constructed from an arranged layer of packages (e.g., square or rectangular) being wrapped by a flexible film. (Specification 4:17-28.) A base constructed from multiple pieces of material spaced in a configuration to permit a forklift to slide under the support structure is attached to the bottom portion of the support structure. (Specification 4:28-30 and Figs. 3 and 4.) Upon arrival to its destination, the entire structure can be dismantled and disposed or recycled dependent on the end user. (Specification 5:5-16.) Claim 1, reproduced below, is representative of the subject matter on appeal.

> 1. A pallet for supporting a load of packages comprising multiple layers, said pallet comprising:
>
> a) a support structure comprising flexible film wrapped around at least one of said multiple layers around a first axis and a second axis, said first axis being generally perpendicular to said second axis, whereby said flexible film covers at least a majority of said at least one of said multiple layers; and

[1] Our decision will make reference to Appellants' Appeal Brief ("App. Br.," filed Mar. 24, 2003), Reply Brief ("Reply Br.," filed Sep. 26, 2006) and the Examiner's Answer ("Answer," mailed Jul. 24, 2006).

b) a disposable/recyclable base adhered to said flexible film which is adapted to receive forks of a forklift.

THE PRIOR ART

The Examiner relies upon the following as evidence of unpatentability:

Meincer	US 3,788,462 B1	Jan. 29, 1974
Lawson	US 3,730,417 B1	May 1, 1973

THE REJECTION

The following rejection is before us for review:

Claims 1-13 are rejected under 35 U.S.C. § 103(a) as unpatentable over Meincer in view of Lawson.

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting claims 1-13 under 35 U.S.C. § 103(a) as unpatentable over Meincer and Lawson.[2] This issue turns on whether substituting the base structure taught in Lawson for the disclosed base structure in Meincer would yield a predictable result.

[2] Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants could have made but chose not to make in the Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Meincer discloses a support structure constructed from a rectilinear arrangement of packages wrapped in perpendicular layers of flexible film. (Meincer, figs. 1 and 2 and col. 2, ll. 52-60.)
2. The support structure supports a load of packages comprising multiple layers. (Meincer, figs. 3 and 4 and col. 3, ll. 15-50.)
3. Meincer places the support structure and the load of packages on a conventional material handling base structure. (Meincer, fig. 4 and col. 2, ll. 27-28.)
4. Lawson teaches conventional "wooden" pallet manufacturing is expensive and heavy and there have been attempts to minimize costs and weight through the use of less expensive and lighter materials. (Lawson, col. 1, ll. 19-25.)
5. Lawson teaches the prior art attempted to reduce cost and weight by using fiber board material as a substitute for wood. (Lawson, col. 1, ll. 29-33.)
6. Lawson's improvement to the art is to form the pallet/container from reusable and recyclable materials. (Lawson, col. 2, ll. 42-43 and col. 5, ll. 27-28.)

7. Lawson teaches a base constructed from a plurality of spacers adhered to the bottom of the support structure and spaced in a relation adapted to receive the forks of a forklift. (Lawson, col. 5, ll. 28-36.)
8. Lawson teaches these spacers provide a means for supporting the load carried by the pallet/container. (Lawson, col. 5, ll. 38-42.)

PRINCIPLES OF LAW

The Supreme Court has emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248," *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1739 (2007) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)), and reaffirmed these principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." 127 S.Ct. at 1739. The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

127 S.Ct. at 1740. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements

according to their established functions." *Id.*

The Supreme Court's opinion in *United States v. Adams*, 383 U.S. 39, 40 (1966) is illustrative of the "functional approach" to be taken in cases where the claimed invention is a prior art structure altered by substituting one element in the structure for another known element. *KSR*, 127 S.Ct. at 1739. "The Court [in *Adams*] recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. 383 U.S., at 50-51." *Id*. at 1740. Ultimately the *Adams* Court found the combination at issue *not* obvious to those skilled in the art because, although the elements were known in the prior art, they worked together in an *unexpected* manner.

> The [*Adams*] Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. *Id*., at 51-52, 86 S.Ct. 708. When Adams designed his battery, the prior art warned that risks were involved in using the types of electrodes he employed. *The fact that the elements worked together in an unexpected and fruitful manner supported the conclusion that Adams's design was not obvious to those skilled in the art*.

KSR, 127 S.Ct. at 1740 (emphasis added).

ANALYSIS

The Appellants argue independent claim 1 and "renew" these arguments for independent claims 8 and 13 (App. Br. 8-13.) As such, we select claim 1 as the

representative claim, as claims 8 and 13 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

In summary, the Appellants contend Meincer and Lawson teach away from the claimed invention. (App. Br. 8.) The Appellants support this contention with a number of arguments. The Appellants contend that Meincer's lowermost layers do not act as the claimed "base." (App. Br. 9.) The Appellants contend Lawson does not cure the deficiencies of Meincer and Lawson's spacers are not adhered to the load. (App. Br. 9-10.) Instead, the Appellants contend the spacers are adhered to the bottom inside surface of the outer container. (App. Br. 11.) Appellants contend the Lawson spacers are not used for the same intended purpose as either the Meincer's structure 10 or lowermost layers. (App. Br. 10-11.)

The Examiner has found Meincer teaches substantially the claimed structure except for the base spacers. (Answer 3-4.) The Examiner has found Lawson teaches the base spacers. (Answer 4.) The Examiner has provided evidence through a prior art patent that using recyclable or disposable materials for base structures to support a load of packages is known in the art. (Answer 4.) The Examiner has found one skilled in the art is readily able to substitute the Lawson spacers for the Meincer base structure because "such structure is used in the same intended purpose of providing a unitary package structure." (Answer 4.) In other words, the Examiner's rationale is the substitution of the known Lawson base spacers for the known Meincer base structure would yield a predictable result (allowing a forklift to lift a load packages from underneath) to one of ordinary skill

in the art at the time of the invention. The Examiner's statements are well founded from the teachings of Meincer and Lawson.

Meincer discloses the claimed support structure of wrapping a flexible film around at least one layer of packages that will be part of multiple layers of like packages. (Finding of Facts 1-2.) Meincer places this structure on a base. (Finding of Fact 3.) Lawson teaches bases like Meincer's have a disadvantage of being expensive and heavy. (Finding of Fact 4.) Lawson identifies this as a problem and the solution is to provide a structural system that is less expensive, lighter, and recyclable. (Finding of Facts 4-6.) This system has to be able to receive the forks from a forklift. Lawson proposes providing a plurality of spacers adhered to the bottom of the support structure and are spaced in such a relation to permit the forks of a forklift to pass under the load. (Finding of Fact 7.) These spacers are able to support a load. (Finding of Fact 8.) Thus, one of ordinary skill in the art substituting the Lawson spacer base for the Meincer base is able to achieve the predictable result of a base structure capable of receiving the forks of a forklift with the advantage of using less expensive and lighter materials that are recyclable. As such, the substitution would have been obvious to one of ordinary skill in the art. *KSR*, 127 S.Ct. at 1739.

In the Reply Brief and the Appeal Brief, the Appellants have maintained the contention that Lawson's spacers cannot be used as a "base" because Lawson does not teach the spacers 60 being used as a "base" and these spacers are only attached to the inside surface of the outer container. (Reply Br. 1-3 and App. Br. 10-11.) However, the Lawson disclosure teaches otherwise.

As shown in figure 2 and described in column 5, lines 28-40, Lawson teaches the spacers 60 are adhesively attached to both the structures 54 and 56 and to the bottom of structure 12. (Finding of Fact 7.) Thus, the spacers 60 are attached to a base, that base being structural flaps 54 and 56. Further that attachment is in a spaced relationship to each other to form a plurality of channels 62 and 64 allowing entry of the forks of the forklift truck whenever the forks of the forklift truck are inserted through opening 14 and 16. (Lawson, col. 5, ll. 33-37.) In addition, the spacers provide means for supporting the load carried within. (Finding of Fact 8.) Thus, the flaps 24 and 26 that form the bottom of structure 12 provides no support of the load. Instead, the purpose of the structure 12 at the location where the flaps 54 and 56 and 24 and 26 meet is to provide a guide for the forks of a forklift. (Lawson, col. 4, ll. 14-17.) Thus, in addition to the spacers 60, flaps 54 and 56 support the load within the container 46. Thus, contra to the contention the Lawson's spacers could not be used as a base, the Lawson spacers 60 can be used as a base to support a load. (*See* Lawson, col. 5, ll. 38-42.)

Lawson's base performs the same function as Meincer' base, which is to support a load of packages. The substitution for Lawson's taught base for the Meincer base amounts to a substitution of one known element for another to obtain a predictable result.

CONCLUSIONS OF LAW

We conclude that the Appellants have not shown that the Examiner erred in rejecting claims 1-13.

DECISION

The decision of the Examiner to reject claims 1-13 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)(1)(iv) (2007).

AFFIRMED

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Nellie C. Kaufman, Esq.
KLAAS, LAW, O'MEARA & MALKIN, P.C.
1999 Broadway, Suite 2225
Denver, CO 80202