

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ILLINOIS TOOL WORKS INC.

Appeal 2009-1013
Application 10/369,964
Technology Center 3700

Decided: January 13, 2009

Before RICHARD E. SCHAFER, JAMESON LEE, and SALLY C.
MEDLEY, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

This is a decision on appeal by the real party in interest, Illinois Tool Works Inc. (ITW), under 35 U.S.C. § 134(a) from a final rejection of claims

Appeal 2009-1013
Application 10/369,964

1-3, 6-14, and 28-30. ITW requests reversal of the Examiner's rejection of those claims. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

References Relied on by the Examiner

Rosenberg	3,719,021	Mar. 6, 1973
McDonald	5,085,031	Feb. 4, 1992
Bois	6,789,374 B1	Sep. 14, 2004
Schneider	2002/0194816 A1	Dec. 26, 2002

The Rejections on Appeal

The Examiner rejected claims 1-3, 8-11, 13, 14, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over Schneider, Bois, and Rosenberg.

The Examiner rejected claims 1, 6, 7, 10, 12, and 14 under 35 U.S.C. § 103(a) as unpatentable over McDonald and Rosenberg.

The Examiner rejected claims 11 and 28-30 under 35 U.S.C. § 103(a) as unpatentable over McDonald, Rosenberg, and Schneider.

The Invention

The invention relates to methods for making package strips having a pre-selected number of individual packages of a consumer product. (Spec. 1:22-25).

Claim 1 is reproduced below:

1. A method for manufacturing package strips having a preselected number of individual packages of a consumer product, each of said individual packages having a reclosable plastic zipper, said method comprising the steps of:

- a) providing a top sheet of polymeric film material and a bottom sheet of polymeric film material, said top sheet and said bottom sheet being of substantially equal width;
- b) providing a supply of reclosable zipper strip;
- c) attaching preselected lengths of said reclosable zipper strip, one for each individual package being manufactured, transversely upon one of said top and bottom sheets at package-length intervals thereon;
- d) depositing a consumer product to be packaged on said bottom sheet at package length intervals thereon;
- e) covering said consumer product with said top sheet;
- f) sealing said top sheet to said bottom sheet, whereby said top sheet is over the consumer product and said bottom sheet is under the consumer product so as to enclose said consumer product between said top and bottom sheets;
- g) attaching said preselected lengths of said reclosable zipper strip to the other of said top and bottom sheets;
- h) making a cross seal on a side of said consumer product opposite to said preselected length of reclosable zipper strip to form said individual packages thereof;
- i) making perforations between each pair of individual packages to enable said individual packages to be separated from one another;
and
- j) cutting between pairs of individual packages at preselected intervals to obtain said package strips having a preselected number of individual packages.

B. ISSUES

1) Has ITW shown that the Examiner erred in determining that in the field of package manufacturing, the techniques of folding a film along either multiple longitudinal lines or about a single longitudinal line are art recognized equivalents of one another?

2) Has ITW shown that the Examiner erred in determining that a person of ordinary skill in the art would have had adequate reason to combine the teachings of McDonald with Rosenberg?

C. FINDINGS OF FACT

1. Schneider discloses an apparatus for horizontally forming, filling, and sealing packaging about a packaged product. (Schneider 1: ¶1.)

2. In Schneider, a packaging film 12 is drawn through a forming box 26 that includes interior guide bars 40. (Schneider 2: ¶19.)

3. Schneider's Figure 6 is reproduced below:

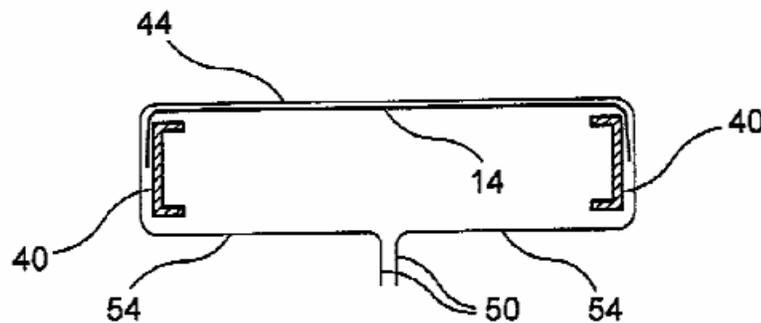


FIG. 6

Figure 6 depicts one embodiment in which a packaging film is folded around guide bars 40. (Schneider 1: ¶14.)

4. As shown in Figure 6, a film is guided around guide bars 40 such that the longitudinal edges 50 of the film are adjacent one another.

19. Rosenberg expressly discloses that its teachings apply to “many types of packages.” (Rosenberg 1:23.)

20. In Rosenberg, perforations are formed between adjacent packages in a package string without completely severing one package from another. (Rosenberg 4:14-21.)

21. Rosenberg further discloses that a predetermined number of packages may then be connected to one another into a single group. (Rosenberg 4:22-31.)

22. That single group is then cut from the remaining packages in the package string into a separate unit containing the desired number of connected packages. (Rosenberg 4:21-36.)

D. PRINCIPLES OF LAW

A basis to combine teachings need not be expressly stated in any prior art reference. *In re Kahn*, 441 F.3d 977, 989 (Fed. Cir. 2006). There need only be an articulated reasoning with rational underpinnings to support a motivation to combine teachings. *Id.* at 988. Furthermore, a combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007).

The test for obviousness is what the combined teachings of the references would have suggested to a person of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). 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. *KSR Int’l*

Co., 127 S. Ct. at 1740. Furthermore, a person of ordinary skill in the art is also a person of ordinary creativity, not an automaton. *Id.* at 1742.

A prior art reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect. *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985).

E. ANALYSIS

The Examiner rejected ITW's claims as follows:

1) Claims 1-3, 8-11, 13, 14, 29, and 30 are rejected over Schneider, Bois and Rosenberg;

2) Claims 1, 6, 7, 10, 12, and 14 are rejected over McDonald and Rosenberg;

3) Claims 11 and 28-30 are rejected over McDonald, Rosenberg, and Schneider.

ITW argues the three grounds of rejection separately.

Claims 1-3, 8-11, 14, 29, 30 - Schneider, Bois, Rosenberg

We focus on the disputed limitations. Each of the independent claims 1, 6, 10, and 14 include the requirement of "providing a top sheet of polymeric film material and a bottom sheet of polymeric film material" that are "of substantially equal width" and "sealing said top sheet to said bottom sheet." (Claims App'x pp. 1, 14, 15, 17.) ITW disputes that the references satisfy the "of substantially equal width" requirement. According to ITW, Schneider does not disclose top and bottom sheets of substantially equal width and neither Bois nor Rosenberg remedy that deficiency. (App. Br. 9:13-10:5.)

The Examiner does not disagree with ITW that Schneider does not disclose top and bottom sheets of substantially equal width. The Examiner found that Schneider discloses “providing a plastic packaging film material (12) that forms a top sheet (central portion 44 + left portion 54L) and a bottom sheet (right portion 54R)” and “sealing the top sheet to the bottom sheet by longitudinal sealing bars (52).” (Ans. 3:12-20.) The Examiner determined that a top sheet formed by central portion 44 and left portion “54L” is not substantially equal in width to bottom sheet “54R.” (Ans. 4:9-10.)

Schneider discloses an apparatus for horizontally forming, filling, and sealing packaging about a packaged product. (Schneider 1: ¶1.) In Schneider, a packaging film 12 is drawn through a forming box 26 that includes interior guide bars 40. (Schneider 2: ¶19.)

Schneider’s Figure 6 is reproduced below:

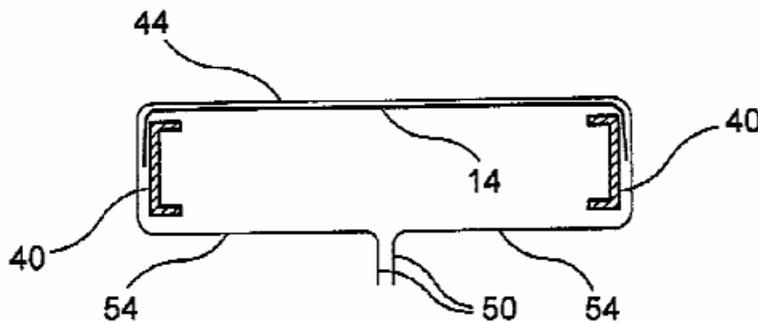


FIG. 6

Figure 6 depicts one embodiment in which a packaging film is folded around guide bars 40. (Schneider 1: ¶14.)

As shown in Figure 6, a film is guided around guide bars 40 such that the longitudinal edges 50 of the film are adjacent one another. In that configuration, a product receiving surface 54 is formed on each side of the

edges 50 and a center portion 44 is formed above the guide bars 40. The edges 50 are then sealed together to form a closed envelope. (Schneider 2:¶21.) Because the edges are sealed along a bottom face of the envelope between the left and right portions of product receiving surface 54, a top sheet formed by central portion 44 and left product receiving surface 54 is greater in width than a bottom sheet formed by right product receiving surface 54.

Recognizing that the “substantially equal width” requirement is not satisfied by Schneider alone, the Examiner pointed to Bois to make up the deficiency. Bois discloses a method of manufacturing a string of re-closeable bags. (Bois 1:10-19.) Figure 3 of Bois illustrates a film 10 that is folded over onto itself along multiple longitudinal lines to form an enclosure where the film edges 15 and 16 are arranged adjacent to one another. (Bois 4:13-15; Figure 3.)

Figure 3 of Bois is reproduced below:

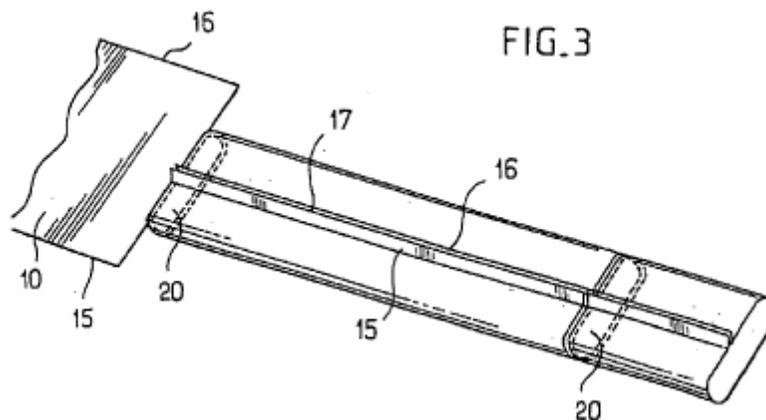


Figure 3 shows one embodiment of a method of folding a film to form a string of plastic bags. (Bois 2:55-57.)

In the embodiment of Figure 3, the edges 15 and 16 run along a face of the enclosure in a manner similar to that shown in Schneider's Figure 6. However, Bois also shows in Figure 16 a second alternative embodiment in which web 10 is folded to form an envelope. (Bois 6:28-30.) In that embodiment, rather than being folded along two longitudinal fold lines, web 10 is folded along a single fold line. (Bois Figure 16.)

Figure 16 of Bois is reproduced below:

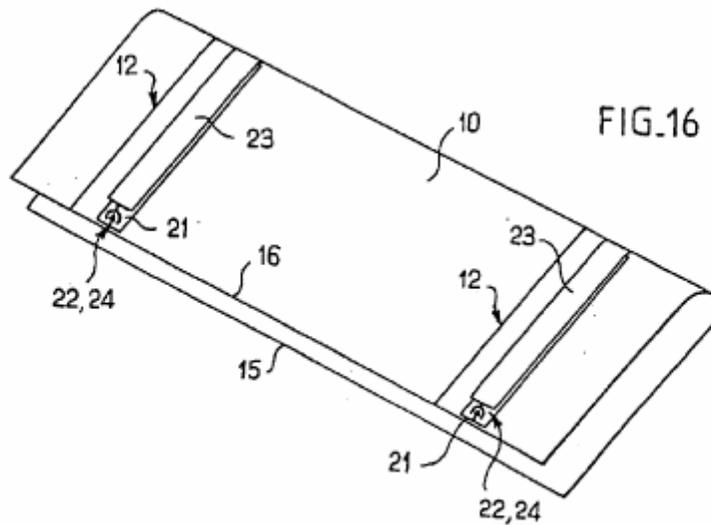


Figure 16 shows an alternative embodiment of a method of folding a film to form a string of plastic bags. (Bois 3:13-15.)

As shown in Figure 16, film 10 is folded in half along a single fold line such that edges 15 and 16 are arranged on one side of the film. Edges 15 and 16 are then bonded together. (Bois 6:35-38.) According to the Examiner, in the configuration of Figure 16, the top and bottom sheets of the envelope are "of substantially equal width." (Ans. 4:14-16.) The Examiner explained that a person of ordinary skill in the art would have known to form Schneider's plastic bags with top and bottom sheets of substantially equal

width, as taught in Bois' Figure 16, because that is a recognized alternative forming technique in the package manufacturing art. (Ans. 4:18 to 5:3.)

A basis to combine teachings need not be expressly stated in any prior art reference. *In re Kahn*, 441 F.3d at 989. There need only be an articulated reasoning with rational underpinnings to support a motivation to combine teachings. *Id.* at 988. Furthermore, a combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Int'l Co.*, 127 S. Ct. at 1739.

Here, both Schneider and Bois are in the field of package manufacturing. In the embodiment of Figure 3, Bois discloses a package forming technique in which a film is folded along multiple fold lines to form an envelope that is sealed about a face of the envelope. In the alternative embodiment of Figure 16, Bois teaches that a film is folded along a single fold line forming an envelope with edges at one side. In that alternative embodiment, top and bottom sheets of the envelope are substantially equal in width. In light of those Bois' teachings, the Examiner determined that it would have been obvious to a person of ordinary skill in the art to select the folding technique illustrated in Bois' Figure 16 to form the envelope in Schneider. The Examiner's determination is credible as it accounts for a skilled artisan's ability in the packaging art to reasonably select either of two known alternative folding techniques in forming a plastic bag. ITW does not address the teachings of Bois and does not explain why there is error in the Examiner's determination. We reject ITW's argument that the combined teachings of Schneider and Bois do not satisfy the requirement of top and bottom sheets that are "of substantially equal width."

We sustain the rejection of claims 1-3, 8-11, 13, 14, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over Schneider, Bois, and Rosenberg.

Claims 1, 6, 7, 10, 12, and 14 – McDonald and Rosenberg

The Examiner also rejected claims 1, 6, 7, 10, 12, and 14 as unpatentable over McDonald and Rosenberg.

The Examiner determined that McDonald discloses a method of manufacturing a series of individual packages that satisfies all the claim requirements with the exception of steps from each of independent claims 1, 6, 10, and 14 that read (Claims App'x 13:3-6; 14:18 to 15:2; 16:13-16; 18:5-8):

making perforations between each pair of individual packages to enable said individual packages to be separated from one another; and

cutting between pairs of individual packages at preselected intervals to obtain said package strip having a preselected number of individual packages.

To account for those limitations, the Examiner relied on the teachings of Rosenberg. The Examiner found that Rosenberg teaches a method of producing package strips that includes steps of perforating and cutting the packages into a predetermined number of packages. The Examiner determined it would have been obvious to a person of ordinary skill in the art to modify McDonald to incorporate the perforating and cutting steps of Rosenberg. (Ans. 8:2-13.)

Evidently, ITW does not dispute the teachings of either McDonald or Rosenberg. Instead, ITW contends that McDonald relates to a horizontal thermoform apparatus while Rosenberg relates to a vertical form fill and seal

apparatus. According to ITW, the two references use different materials, have a different orientation, and a different mode of operation from each other rendering them so diverse that a person of ordinary skill in the art would have no motivation to combine their teachings. (App. Br. 10:8-15.)

ITW's arguments are not well supported.

Each of McDonald and Rosenberg discloses a method for manufacturing sealed packages. (McDonald 1: ¶ 4; Rosenberg 1:6-8.) Neither reference substantively distinguishes a horizontal form fill and seal apparatus from a vertical form fill and seal apparatus. Indeed, neither reference even uses the term "vertical form fill and seal." Furthermore, Rosenberg is not limited to packages of any particular material and expressly discloses that its teachings apply to "many types of packages." (Rosenberg 1:23.) In Rosenberg, perforations are formed between adjacent packages in a package string without completely severing one package from another. (Rosenberg 4:14-21.) Rosenberg further discloses that a predetermined number of packages may then be connected to one another into a single group. (Rosenberg 4:22-31.) That single group is then cut from the remaining packages in the package string into a separate unit containing the desired number of connected packages. (Rosenberg 4:21-36.)

The test for obviousness is what the combined teachings of the references would have suggested to a person of ordinary skill in the art. *In re Keller*, 642 F.2d at 425. 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. *KSR Int'l Co.*, 127 S.

Ct. at 1740. Furthermore, a person of ordinary skill in the art is also a person of ordinary creativity, not an automaton. *Id.* at 1742.

The Examiner determined that a person of ordinary skill in the art would have modified McDonald's packages to include perforating and cutting steps, such as those of Rosenberg, for the benefit of connecting a predetermined number of packages into a single associated group. That determination reasonably takes into account how a person of ordinary skill and creativity in the field of package manufacturing would view the combined teachings of the references to obtain the benefits disclosed by Rosenberg in a packaging method such as that of McDonald. ITW does not account for a person of ordinary creativity's evaluation of the combined teachings of the references in resolving the obviousness of the claims.

Moreover, even if Rosenberg is a "vertical form fill and seal" packaging apparatus, a prior art reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect. *EWP Corp.*, 755 F.2d at 907. As discussed above, the perforating and cuttings steps disclosed in Rosenberg are beneficial in separating a collection of individual packages into a single group. ITW does not explain why that benefit would not also apply to other packaging methods, such as that of McDonald, regardless of how the package is filled and sealed, i.e. either horizontally or vertically. ITW has essentially pointed out a difference without distinction between "horizontal thermoform" type prior art and "vertical form and seal" type prior art.

For the foregoing reasons, we reject ITW's argument that a person of ordinary skill and creativity in the art would have no motivation to combine the teachings of the McDonald and Rosenberg.

We sustain the rejection of claims 1, 6, 7, 10, 12, and 14 under 35 U.S.C. § 103(a) as unpatentable over McDonald and Rosenberg

Claims 11 and 28-30 – McDonald, Rosenberg, and Schneider

Claims 11 and 28-30 are dependent on one of claims 1, 6, 10, and 14. ITW again argues that McDonald and Rosenberg are so diverse from one another that a person of ordinary skill in the art would have no motivation to combine their teachings. (App. Br. 11:4-9). For the same reasons as those above, we reject ITW's argument.

We sustain the rejection of claims 11 and 28-30 under 35 U.S.C. § 103(a) as unpatentable over McDonald, Rosenberg, and Schneider

F. CONCLUSION

1) ITW has not shown that the Examiner erred in determining that in the field of bag manufacturing, the techniques of folding a film along either multiple longitudinal lines or about a single longitudinal line are art recognized equivalents of one another.

2) ITW has not shown that the Examiner erred in determining that a person of ordinary skill in the art would have had adequate reason to combine the teachings of McDonald with Rosenberg.

G. ORDER

The rejection of claims 1-3, 8-11, 13, 14, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over Schneider, Bois, and Rosenberg is **affirmed**.

The rejection of claims 1, 6, 7, 10, 12, and 14 under 35 U.S.C. § 103(a) as unpatentable over McDonald and Rosenberg is **affirmed**.

The rejection of claims 11 and 28-30 under 35 U.S.C. § 103(a) as unpatentable over McDonald, Rosenberg, and Schneider is **affirmed**.

Appeal 2009-1013
Application 10/369,964

AFFIRMED

ack

cc:

Day Pitney, LLP
7 Times Square
New York, NY 10036-7311