

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT H. ASHTON

Appeal 2008-1500
Application 10/456,600
Technology Center 1700

Decided: September 25, 2008

Before EDWARD C. KIMLIN, CHUNG K. PAK, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's refusal to allow claims 1 through 28, all of the claims pending in the above-identified application. We have jurisdiction pursuant to 35 U.S.C. § 6.

STATEMENT OF THE CASE

The subject matter on appeal is directed to a household cabinet dishwashing machine with a drawer lifting mechanism (Spec. 1, ll. 5-20). The drawer lifting mechanism “can move the drawer between a conventional initial fill/empty position and a raised position that permits facile loading and a unloading of the drawer” (Spec. 1, ll. 22-23). This lift mechanism allows users to avoid bending uncomfortably during the loading and unloading of the drawer (Spec. 1, ll. 17-24). Further details of the appealed subject matter are recited in representative claim 1 reproduced below:

1. A dishwasher comprising:

a housing defining an interior chamber having an open face providing access to the interior chamber;

a first drawer defining a first wash chamber and moveably mounted to the housing for movement between a wash position where the first drawer is deposited inside the interior chamber and a fill/empty position where at least a portion of the first drawer extends out of the interior chamber;

a liquid recirculation system associated with the first drawer for recirculating wash liquid in the first wash chamber; and

a drawer lift mechanism moving the first drawer between the fill/empty position and a raised position above the fill/empty position.

As evidence of unpatentability of the claimed subject matter, the Examiner has relied upon the following references:

Messersmith	US 3,589,787	Jun. 29, 1971
Nichols	US 5,115,822	May 26, 1992
Miller	US 6,247,771 B1	Jun. 19, 2001

The Examiner has finally rejected the claims on appeal as follows:

1) Claims 1 through 12, 16 through 24, 27, and 28 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Miller and Nichols; and

2) Claims 13 through 15, 25, and 26 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Miller, Nichols, and Messersmith.

The Appellant appeals from the Examiner's decision finally rejecting the claims on appeal under 35 U.S.C. § 103(a).

RELEVANT FACTUAL FINDINGS (FF)

1. Appellant acknowledges (Spec. 1, ll. 10-16) that:

Household dishwashing machines having the appearance of a cabinet are known. Such dishwashers generally have at least one drawer that forms a wash tub, and if two or more drawers are employed, then usually each drawer functions as a separate wash tub. Cabinet dishwashers are desirable because the drawers are simple to use and the user does not have to manipulate a conventional pull-down door. Furthermore, the cabinet dishwashers have a sleek appearance that integrates well with other cabinet structures in the kitchen.

2. Appellant acknowledges (Spec. 6, ll. 14-23) that:

The preferred drawer slides 36 as described are well known and need not be described further... In addition, any other type of drawer slides, which are well known, or any another mechanism suitable for facilitating movement of drawers between the wash and fill/empty positions can be utilized.

Each drawer 16, 26 also comprises a liquid recirculation system 45 for introducing, recirculating, and draining liquid. The type of liquid recirculation system used is not germane to the invention. Any suitable type of recirculation system can be

used, such as those disclosed in US 6,447,081, which is incorporated by reference.

3. Miller teaches a dishwasher lower rack lifting device “for loading and unloading the lower rack without having to stoop” (col. 1, ll. 5-19).

4. Miller illustrates a dishwasher having a housing for defining an interior chamber and a door for accessing the interior chamber, wherein a lower rack capable of holding items to be washed is moveably mounted to the housing so that it can be placed within the interior chamber for a wash position and outside the interior chamber for a loading/unloading position (Figs. 1-3 and col. 4, l. 8 to col. 5, l. 7).

5. Miller teaches a scissors-like lifting assembly for lifting the lower rack on the outside of the interior chamber from a retracted position to an extended (raised) position and lowering the lower rack from the extended (raised) position to the retracted position (Figs. 1 and 3; col. 4, l. 65 to col. 5, l. 7).

6. Miller teaches that the scissors-like lifting assembly comprises elongate brace members having lower and upper ends, with the upper end being coupled to the lower rack and the lower ends being moveably coupled to a track member which is moveably connected to a housing via roller members, wherein the elongate brace members are pivotally and conventionally attached to one another at intermediate portions thereof such that a crank member can be turned in one or another direction to rotate the brace members into an expanded (raised) position or into a retracted (non-raised) position (col. 4, l. 17 to col. 5, l. 7).

7. Miller teaches (col. 5, ll. 13-18) that “it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form function and manner of operation, assembly and used, are deemed readily apparent and obvious to one skilled in the art...”

8. Nichols teaches (col. 1, ll. 10-16) that:

Loading and unloading the lower dish basket of a common dishwasher is not always an easy task especially for the elderly or persons having difficulty bending or otherwise reaching down to the level of the lower basket. Accordingly, it would be desirable to provide for a lower dishwasher basket which provides for easier access.

9. Nichols illustrates a “dishwasher 10 of conventional structure having [lower and upper dish holding baskets,] except for the lower dish holding basket assembly 12” comprising “a base frame including at least a pair of side rails 14, 16 each carrying or otherwise providing for attachment of rollers or slides 18, 20 for sliding and positioning the frame and basket attached thereto.....between a position inside of the washing compartment 22 of the dishwasher and a position disposed externally of the dish washing compartment...[m]ost dishwashers include ledges 26 on inner walls of the washing compartment 22 and the slides or rollers on the base frame are adapted to slide or roll on such ledges...” (Fig. 1-3 and col. 2, ll. 40- 62 and col. 3, ll. 31-52).

10. Nichols teaches a scissor-type lift device attached to the base frame for lifting the lower basket disposed externally of the dish washing compartment from a retracted position to an extended (raised) position and lowering the

lower basket from the extended (raised) position to the retracted position (col. 5, ll. 4-29 and Figs. 2, 2A, and 2B)).

11. Messersmith teaches an actuator employing a reversible drive motor coupled to a shaft for selectively rotating the shaft in first and second opposite directions for the purpose of opening a dishwasher door (col. 1, ll. 25-38).

PRINCIPLES OF LAW

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary consideration (e.g., the problem solved). *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966). “[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741 (2007); *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006)(“The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself.”); *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969)(“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from common knowledge and common sense of the person of ordinary skill

in the art without any specific hint or suggestion in a particular reference.”). The common knowledge imputed to the level of one of ordinary skill in the art includes Appellant’s admission regarding what was known at the time of the invention. *See In re Nomiya*, 509 F.2d 566, 570-71 (CCPA 1975) (the admitted prior art in an Applicant’s Specification may be used in determining the patentability of a claimed invention); *see also In re Davis*, 305 F.2d 501, 503 (CCPA 1962); *see also In re Fout*, 675 F.2d 297, 301 (CCPA 1982), “[i]t is not unfair or contrary to the policy of the patent system that appellants’ invention be judged on obviousness against their actual contribution to the art” (footnote omitted). Consequently, “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. at 1739. Similarly, “discovery of an optimum value of a result effective variable...is ordinarily within the skill of the art.” *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980).

ANALYSES AND ISSUES

1. Claims 1 through 12, 16 through 24, 27, and 28 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Miller and Nichols.

Appellant acknowledges that conventional cabinet dishwashers having two or more moveable or slidable drawers defining separate washing chambers corresponding to the claimed drawers are known to be desirable (FF 1 and 2). Appellant also acknowledges that recirculation systems suitable for dishwashers are known (FF 2). However, Appellant contends that one of ordinary skill in the art would not have been led to employ the claimed scissor-like lifting device, such as that taught by Miller and/or Nichols, in

the admittedly known cabinet dishwashers to move its lower drawer between raised (expanded) and non-raised (retracted) positions (e.g., Reply Br. 4-11).

Thus, the dispositive question is: Would one of ordinary skill in the art have been led to employ the scissor-like lifting device taught by Miller and/or Nichols in the admittedly known cabinet dishwashers to move its lower drawer between raised (expanded) and non-raised (retracted) positions within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the affirmative.

As indicated *supra*, both Miller's lower rack and Nichols' lower basket, like the lower drawer of a conventional cabinet dishwasher, are slidably mounted to move (slide) the rack or basket between a position inside of a dish washing compartment of the dishwasher (wash position) and a position disposed externally of the dish washing compartment corresponding to the claimed fill/empty position. Miller and Nichols, like Appellant, recognize a problem associated with bending or otherwise reaching down to the level of a lower dish container (e.g., lower rack or lower basket) during the loading and unloading of the container (FF 3 and 9). Miller and Nichols, like Appellant, employ scissor-like lifting devices to address such problem. These scissor-like lifting devices, like that claimed, are designed to be operable between a retracted (non-raised) position and an extended (raised) position¹ when the lower dish container is disposed externally of the dish washing compartment.

¹ The determination of an optimum extended position corresponding to the claimed height to minimize the bending or reaching down problem taught by Miller or Nichols via routine experimentation is well within the ambit of one of ordinary skill in the art.

Given the above teachings, we determine that one of ordinary skill in the art would have been led to employ the scissor-like lifting device suggested by Miller and/or Nichols in the admittedly known cabinet dishwasher in the manner suggested by Miller and/or Nichols, motivated by a reasonable expectation of successfully lifting or raising the lower dish drawer of the admittedly known cabinet dishwasher to minimize or avoid the bending or reaching down problem associated with loading and unloading the lower drawer thereof.

Accordingly, we affirm the Examiner's decision rejecting claims 1 through 12, 16 through 24, 27, and 28 under 35 U.S.C. § 103(a).

2. Claims 13 through 15, 25, and 26 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Miller, Nichols, and Messersmith.

As discussed above, the disclosures of Miller and Nichols, together with the knowledge of one of ordinary skill in the art as represented by Appellant in the Specification, would have suggested one of ordinary skill in the art to employ a scissor-like lifting device in the manner suggested by Miller and/or Nichols in a conventional cabinet dishwasher for the purpose of lifting and lowering the lower drawer thereof. Appellant contends that one of ordinary skill in the art would not have been led to employ Messersmith's automatic door opener involving an actuator employing a reversible drive motor, together with Miller's crank member or pivot connection for the brace members, to rotate the brace members of its scissor-

like lifting device into an expanded (raised) position or a retracted (non-raised) position (Br. 12-15).

The dispositive question is, therefore, whether one of ordinary skill in the art would have been led to employ the reversible drive motor (automatic rotating means) taught by Messersmith, coupled with Miller's crank member or pivot connection for the brace members, to rotate the brace members of its scissor-like lifting device into an expanded (raised) position or a retracted (non-raised) position within the meaning of 35 U.S.C. § 103(a)? On this record, we answer this question in the affirmative.

As indicated *supra*, Miller teaches employing a crank (rotating) member or a pivot (rotating) member for the brace members that can be turned in one or opposite direction to rotate the brace members of its scissor-like lifting device into expanded (raised) or a retracted (non-raised) positions. Miller does not mention employing a reversible drive motor coupled to the crank member or the pivot connection to rotate the crank or the pivot connection in one or opposite direction to automatically raise or lower its dish carrying container. Messersmith, however, teaches an actuator employing a reversible drive motor couple to a shaft for selectively rotating the shaft in first and second opposite directions for automatic operation. Although the reversible drive motor is used in connection with an actuator for opening a dishwasher door, one of ordinary skill in the art would have been fully aware of its applicability in rotating the crank member or the pivot connector for the purpose of automatically operating the scissor-like lifting device taught or suggested by Miller and/or Nichols. It follows that one of ordinary skill in the art, interested in an automatic lifting device

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(lifting device requiring an automatic rotation), would have been led to employ the reversible drive motor taught by Messersmith in the operation of the lifting device taught by Miller and/or Nichols in the manner indicated above within the meaning of 35 U.S.C. § 103. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. at 1739 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”).

Accordingly, we also affirm the Examiner’s decision rejecting claims 13 through 15, 25, and 26 under 35 U.S.C. § 103(a).

ORDER

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).

AFFIRMED

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