

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LARRY C. GUNDLACH, GARY R. SKAAR, DENNIS G. FLISRAM, KENNETH J.
MEPHAM and TIMOTHY WATSON

Appeal No. 1998-2415
Application No. 08/751,798¹

HEARD: JANUARY 10, 2000

Before COHEN, STAAB, and BAHR, Administrative Patent Judges.

BAHR, Administrative Patent Judge.

¹ Application for patent filed November 18, 1996. According to appellants, this application is a continuation of Application No. 08/328,213, filed October 25, 1994, now abandoned; which is a continuation-in-part of Application No. 08/213,494, filed March 14, 1994, issued April 11, 1995 as U.S. Patent No. 5,404,777; which is a continuation of Application No. 07/968,622, filed October 29, 1992, issued Jun. 14, 1994 as U.S. Patent No. 5,320,014.

Appeal No. 1998-2415
Application No. 08/751,798

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1,3-23, 25-31, 33-36, 38-58, 60-67, 70-75, 77-87 and 89-91, which are all of the claims pending in this application. We

AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to an apparatus for slicing food sticks, a slicing blade for slicing food sticks and a method for slicing a stream of food sticks. The key feature of the invention is the blade, which comprises a top flat surface disposed substantially parallel to the food stick cut surface and a bottom primary bevel surface which, together with the top flat surface, defines a "primary angle." It is important to appellants that the "primary angle" be especially steep (specification, page 7). A copy of the claims on appeal appears in the appendix to appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

McBrady et al. (McBrady)	3,299,925	Jan. 24, 1967
Scheflow et al. (Scheflow)	4,685,364	Aug. 11, 1987

The following rejection is before us for review.

Claims 1,3-23, 25-31, 33-36, 38-58, 60-67, 70-75, 77-87 and 89-91 stand rejected under 35 U.S.C. § 103 as being unpatentable over Scheflow in view of McBrady.

Reference is made to the brief (Paper No. 20) and reply brief (Paper No. 22) and the answer (Paper No. 21) for the respective positions of appellants and the examiner with regard to the merits of this rejection.

OPINION

In arriving at our decision on the obviousness issues raised in this appeal, we have given careful consideration to the entire record of this proceeding, including the appellants' specification and claims², the teachings of the applied prior art references, the evidence supplied by appellants, and the respective positions articulated by appellants and the examiner. Having reviewed all of the evidence before us, we make the determinations which follow.

At the outset, we note that appellants' brief, on pages 3 and 4, groups the claims as follows:

- Group A: claims 1, 5-23, 26-31, 34-36, 40-56, 58, 62-67, 70, 71³, 77, 78, 80-83, 90 and 91
- Group B: claims 3, 25, 33, 38, 57, 60, 79 and 89
- Group C: claims 4, 39 and 61
- Group D: claims 72 and 84
- Group E: claims 73 and 85
- Group F: claims 74 and 86
- Group G: claims 75 and 87.

² We note that appellants filed a terminal disclaimer (Paper No. 12) disclaiming the part of the term of any patent issuing on the instant application which would extend beyond the expiration of U.S. Patents No. 5,320,014 and 5,404,777, thereby obviating any obviousness-type double patenting issues.

³ Appellants' inclusion of claims 68 and 69 in this grouping was apparently an inadvertent error, since claims 68 and 69 have been canceled and are not involved in this appeal.

Having reviewed appellants' explanation of the groupings on pages 4 and 5 of the brief, it is apparent to us that appellants intended to include claims 22 and 26 in Groups B and C, respectively, and that the inclusion of these claims in Group A was an inadvertent error. Therefore, in deciding this appeal, we have treated claim 22 as being included in appellants' Group B and claim 26 as being included in appellants' Group C. Further, in accordance with 37 CFR § 1.192(c)(7), we have selected claims 36, 38, 39, 84, 85, 86 and 87 as the representative claims from appellants' Groups A-G, respectively, to decide the appeal of this rejection, with all remaining claims in each respective group standing or falling with the representative claim.

Scheflow discloses a rotary slicer for "comestible products" (column 1, line 5) comprising a product magazine (26) equipped with a product follower (118) for use in feeding comestible products to a circular slicing blade (40), which, as seen in Figure 2, has a beveled cutting edge. Scheflow does not disclose any further details of the comestible products to be sliced or of the blade or the angle of its bevel.

McBrady discloses a blade devised for efficiently severing meat product in semi-frozen condition. According to McBrady, "semi-frozen" is generally defined by the temperature range of 25-29° F (column 1, lines 47-48). McBrady teaches that double beveled blades having a coarse bevel are relatively erratic in laying slices down at all temperatures, while single beveled blades having a relatively fine bevel angle tend to fray and shred the severed surfaces of the meat (column 1, lines 59-64).

McBrady's blade, which comprises one flat side (12) and three contiguous and successive beveled surfaces (14, 16, 18) extending from the extremity of the flat side, achieves both smooth severing of each slice and accurate lay-down of each slice. The angle (A) between the first beveled surface (14) and the flat side (12) "should be between about 27°-33° and is preferably 30°"; the angle (B) of the second beveled surface (16) relative to an imaginary plane (P) parallel to the flat side (12) should be between about 12°-18°, preferably 15°, and the angle (C) of the third beveled surface (18) relative to the imaginary plane (P) should be between about 5° and 11°, preferably 8° (column 2, lines 34-44) .

McBrady discloses that it is essential that the afore-mentioned angles fall within the stated ranges (column 2, lines 33-34).

The examiner (final rejection, page 4) asserts that it would have been obvious to provide a blade on the Scheflow rotary slicer having, *inter alia*, a top flat surface and a first bevel surface extending from the peripheral cutting edge of the blade defining, relative to the top flat surface, a primary angle of between about 35° and about 60°, or between about 47° and about 55° or about 50° ± 0.5° in order to smoothly sever and accurately lay each slice as taught by McBrady. Further, according to the examiner, it would have been obvious to slice "the food sticks of luncheon meat as specifically recited in the claims since the modified apparatus would perform equally well on such similar food sticks" (final rejection, page 6).

Turning first to claim 36, appellants (brief, page 7) argue that the 27°-33° range taught by McBrady would not have rendered obvious the claimed range for the primary angle because (1) the several important advantages of the invention are not enjoyed by any of the prior art and (2) McBrady expressly admonishes that the angle (A) must not exceed an angle of 33°. For the following reasons, we do not find these arguments persuasive of non-obviousness.

Initially, we note that appellants' claim 36 recites that the primary angle is "between about 35° and about 60°" (emphasis added), which allows for angles slightly smaller than 35°, and that McBrady discloses a primary angle of "between about 27°-33°" (emphasis added), which allows for angles slightly larger than 33°. See In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990). Given the very small difference, 2 degrees, between a 33° angle and a 35° angle, we are of the opinion that the range disclosed by McBrady would have *prima facie* suggested the primary angle range of claim 36.

We reach the opposite conclusion, however, with regard to the primary angle ranges recited in appellants' claims 38 and 39. Specifically, we do not agree with the examiner that the angular range of "between about 27°-33°" disclosed by McBrady would have suggested to one of ordinary skill in the art a primary angle of "between about 47° and about 55°" as recited in claim 38 or a primary angle of "about 50° ± 0.5°" as recited in claim 39. Accordingly, we shall not sustain the examiner's rejection of

claims 3, 4, 22, 25, 26, 33, 38, 39, 57, 60, 61, 79 and 89 (appellants' Groups B and C), which contain these limitations.

Turning next to claims 84, 85 and 86, as Schefflow discloses slicing of "comestible products" using the rotary slicer disclosed therein and as McBrady teaches that its disclosed blade is devised for efficiently severing meat product in semi-frozen condition, without any admonition that the blade would not have been suitable for slicing meats having low fat content or high water content, it is our opinion that the combined teachings of Schefflow and McBrady would have suggested to one of ordinary skill in the art the use of a rotary slicer as taught by Schefflow comprising a blade having the characteristics taught by McBrady to slice semi-frozen meats, including meats having fat content of about 10 percent by weight or less and water content of at least about 70 percent as recited in claims 84, 85 and 86, with a reasonable expectation of success. This is sufficient to establish a *prima facie* case of obviousness, so as to switch the burden to appellants to present evidence that it would not have been obvious to one of ordinary skill in the art to slice such meats using a blade of the type taught by McBrady. See In re Merck & Co., 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986), cert. denied, 493 U.S. 975 (1989). While appellants' specification (page 2) suggests that foods having high moisture content and/or low fat content may be difficult to slice without causing damage such as tearing, we, like the examiner, note that appellants have not presented any evidence that the blade taught by McBrady does

not possess the same advantages as the blade of appellants' invention with regard to slicing such products.

Finally, as to claim 87, we note that McBrady discloses a blade devised for severing meat product in semi-frozen condition and that appellants' claim 87 is directed to slicing of food sticks which are frozen or partially frozen. While McBrady teaches that the "semifrozen" state of meat products, such as ground hamburger patties and bacon, is generally defined by the temperature range of 25-29° F, one of ordinary skill in the art at the time of appellants' invention would have appreciated that the temperature range over which a particular meat product is "semi-frozen" would vary somewhat depending on the particular type of meat, as well as its fat and water content. From our viewpoint, such an artisan would have understood McBrady as teaching the use of a blade having the features disclosed therein for slicing meats at any temperature at which they are in semi-frozen condition and would not have construed the referenced temperature range of 25-29° F as being a critical limitation on the operating temperature. As appellants' specification (page 11 and claim 87) indicates that, at least some meats may be in the semi-frozen or partially frozen state at temperatures of about 22° F or less, we do not interpret appellants' brief as arguing that the claimed temperature range precludes temperatures at which the meats are semi-frozen. Therefore, we find that the combined teachings of Schefflow and McBrady are sufficient to establish a *prima facie* case of obviousness of the subject matter of claim 87.

Having concluded, for the reasons discussed above, that the teachings of the applied references are sufficient to establish a *prima facie* case of obviousness⁴ of the subject matter of claims 36 and 84-87, we recognize that evidence of secondary considerations, such as that presented by appellants in this application, must be considered en route to an ultimate determination of obviousness or nonobviousness under 35 U.S.C. § 103. Accordingly, we consider anew the issue of obviousness under 35 U.S.C. § 103, carefully evaluating and weighing both the evidence relied upon by the examiner and the evidence provided by appellants. See In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) and Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538, 218 USPQ 871, 879 (Fed. Cir. 1983).

Appellants' evidence, which has been submitted to show unexpected results, in the form of higher yield, by using the appellants' invention, includes a declaration and a supplemental declaration by Dennis B. Flisram, one of the inventors of the instant invention. The declarations state that water-added ham luncheon meat product was sliced in commercial equipment over a period of six months under conditions generally simulating those of commercial production. Some of the meat was sliced using a blade "in accordance generally with McBrady, having a primary angle of 28°," resulting in an average

⁴ Like the Court in In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992), we recognize that the concept of a "prima facie" case of obviousness is a procedural tool of patent examination which allocates the burdens of going forward as between the examiner and appellants, and that the determinative issue regarding patentability in this, and any case based on obviousness, is whether the record as a whole, by a preponderance of the evidence with due consideration to persuasiveness of argument and secondary evidence, supports the legal conclusion that the invention claimed would have been obvious at the time the invention was made to a person having ordinary skill in the art.

yield of 84%, and some of the meat was sliced in the same commercial equipment using a blade having a primary angle of 40°, resulting in an average yield of 87%. Numerous additional sticks of the same water-added ham luncheon meat were sliced in the same commercial equipment using two different blades, each having a primary angle of 50°. The yield from one of the 50° angle blades was 90.5% while the yield from the other was 91.5%. The supplemental declaration (paragraph 5) further states that the increases in yield of 3.6%, 7.7% and 8.9% for the 40° angle blade and 50° angle blades, respectively, are commercially significant.

Affidavits or declarations submitted as evidence of unexpected results must compare the claimed subject matter with the closest prior art. See In re Burckel, 592 F.2d 1175, 1179, 201 USPQ 67, 71 (CCPA 1979). The slicing using a blade having a 28° primary angle in the testing discussed in the Flisram declaration is not the closest prior art. The Flisram declarations do not include any testing using a blade having a primary angle of about 33°, which is the closest prior art, as disclosed by McBrydy and, thus, are not considered probative evidence of unexpected results.

Moreover, it is well settled that evidence of nonobviousness must be commensurate in scope with the claims to which it pertains. In re Clemens, 622 F.2d 1029, 1035, 206 USPQ 289, 296 (CCPA 1980); In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979) and In re Tiffin, 448 F.2d 791, 792, 171 USPQ 294, 294 (CCPA 1971). See also In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983). The Flisram declarations fall far short of this

requirement, as the testing discussed in the declarations was performed on water-added ham luncheon meat while the claims are directed to slicing of "food sticks," which could include other different types of meat and cheeses, for example. Thus, the declarations do not establish that any improved yields observed in slicing water-added ham luncheon meat would also be achieved in slicing other meats and cheeses falling within the scope of the claimed invention. Additionally, we agree with the examiner that the limited primary angles tested, which do not even include the end points of the claimed range "between about 35° and about 60°," are not sufficient to establish that the improved yields occur over the entire claimed range. See Clemens, 622 F.2d at 1035, 206 USPQ at 296.

In any event, evidence of secondary considerations, such as unexpected results, is but a part of the "totality of the evidence" that is used to reach the ultimate conclusion of obviousness. See Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1483, 44 USPQ2d 1181, 1187 (Fed. Cir. 1997).

After reviewing all of the evidence before us, including the totality of appellants' evidence, it is our conclusion that, on balance, the evidence of nonobviousness fails to outweigh the evidence of obviousness discussed above and, accordingly, the subject matter of claims 36 and 84-87 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103 at the time appellants' invention was made. See Id.

Therefore, we shall sustain the examiner's rejection of claims 36 and 84-87. As claims 1, 5-21, 23, 27-31, 34, 35, 40-56, 58, 62-67, 70, 71, 77, 78, 80-83, 90 and 91 stand or fall with claim 36, claim 72 stands or falls with claim 84, claim 73 stands or falls with claim 85, claim 74 stands or falls with claim 86 and claim 75 stands or falls with claim 87, it follows that we shall sustain the examiner's rejection of rejection of claims 1, 5-21, 23, 27-31, 34, 35, 40-56, 58, 62-67, 70-75, 77, 78, 80-83, 90 and 91 as well.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3-23, 25-31, 33-36, 38-58, 60-67, 70-75, 77-87 and 89-91 under 35 U.S.C. § 103 is affirmed as to claims 1, 5-21, 23, 27-31, 34-36, 40-56, 58, 62-67, 70-75, 77, 78, 80-87, 90 and 91 and reversed as to claims 3, 4, 22, 25, 26, 33, 38, 39, 57, 60, 61, 79 and 89.

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