

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte ANN E. BLECHL, and OLIN D. ANDERSON

Appeal No. 2000-1910
Application No. 08/785,716

ON BRIEF

Before WINTERS, WILLIAM F. SMITH, and ADAMS, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claim 20, the only claim pending in the application.

Claim 20 is reproduced below:

20. Wheat flour derived from a plant comprising a recombinant expression cassette comprising a nucleic acid encoding a glutenin polypeptide and a seed-specific promoter, the plant having a glutenin content in the endosperm of a mature seed at least about 30% different than the glutenin content in the endosperm of a mature seed from a parental wheat plant.

The references relied upon by the examiner are:

Greene et al. (Greene)

4,826,765

May 2, 1989

Bekes et al. (Bekes) "Effects of a High Mr Glutenin Subunit (1Bx20) on the Dough Mixing Properties of Wheat Flour," Journal of Cereal Science, Vol. 19 pp. 3-7 (1994)

GROUND OF REJECTION

Claim 20 stands rejected under 35 U.S.C. § 102(b) as anticipated by Greene.

Claim 20 stands rejected under 35 U.S.C. § 102(b) as anticipated by Bekes.

We reverse the rejection over Greene, and remand this application to the examiner to reconsider the rejection over Bekes.

DISCUSSION

According to appellants (Brief¹, page 2) claim 20 on appeal was originally presented in parent Application No. 08/586,331, now U.S. Patent No. 5,650,558 (the '558 patent). However, in the parent application, the examiner found that the subject matter of claim 20 was "separate and distinct" from the claims of the '558 patent which are drawn to methods of making the wheat plant, the resultant wheat plant, the seed of the plant, and the flour of the seed. Id.

Appellants "[n]ote that wheat flour is nothing more than milled (ground) wheat seed (Aug. 27, 1998 Anderson Declaration, Appendix C)." In this regard,

¹ Paper No. 15, received September 25, 1998.

appellants highlight claim 17 of the '558 patent is drawn to:

A seed derived from a wheat plant comprising a recombinant expression cassette comprising a nucleic acid encoding a glutenin polypeptide and a seed-specific promoter, the plant having a glutenin content in the endosperm of a mature seed at least about 30% different than the glutenin content in the endosperm of a mature seed from a parental wheat plant.

Therefore, appellants argue that “[c]laim 20 of the subject divisional application is identical to claim 17 of US Pat No. 5,650,558, but for the substitution of ‘[w]heat flour’ for ‘[a] seed’.”

According to the examiner (Answer², page 3) “[t]his appeal relates to a wheat derived flour which is characterized as having a glutenin content that is at least 30% altered in comparison to the parental plant.” We agree with the examiner’s construction of the claim. The claim is written in the form of a product by process claim. Therefore as the examiner recognizes, the claim is drawn to “wheat flour”.

Greene:

The examiner finds (Answer, page 3) that Greene “discloses recombinant expression of ... glutenin, which can then be added to wheat, ... for the purpose of improving the quality of the dough, and thereby improving the final product.” However, the examiner recognizes (*id.*) that “Greene does not specify any limits to glutenin addition to wheat flours, but notes that the disclosed methods allow production of large amounts of the glutenin protein for addition to flours as desired.”

² Paper No. 16, mailed December 16, 1998.

In this regard we remind the examiner that “[u]nder 35 U.S.C. § 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim.” Gechter v. Davidson, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). In our opinion, since the examiner recognizes that “Greene does not specify any limits to glutenin addition to wheat flours...” Greene cannot anticipate the claimed invention that requires a glutenin content that is “at least about 30% different than the glutenin content in the endosperm of a mature seed from a parental wheat plant.”

Accordingly, we reverse the rejection of claim 20 under 35 U.S.C. §102(b) as anticipated by Greene.

Bekes:

The rejection over Bekes, however, stands on a different footing. According to the examiner (Answer, page 4) Bekes “discloses the addition of up to 30% more glutenin to wheat flour in two different methods....” We note that appellants do not contest this finding of the examiner. Instead, appellants argue, with reference to the 1998 Anderson Declaration³, (Brief, bridging paragraph, pages 3-4):

Here the cited art teach that purified glutenins may be added to wheat flour to alter its physical properties. However, flour so made by adding exogenous purified glutenins to natural flour is demonstrably different in composition and function than that required by [c]laim 20. For example, the claimed flour is derived from a particular recombinant plant having a novel genome. This novel genome is inherently present in the plant, any seed derived from such plant, and any flour milled from such seed....

³ Brief, Appendix C.

We note that the 1998 Anderson Declaration (paragraph 2) states “[w]heat flour is made by milling seeds from wheat plants. Wheat flour will inherently contain the genome of the plant from which the seeds are derived. This is because the genome is present in the seeds and milling the seeds into flour does not make the genome go away.”

In response, the examiner argues (Answer, page 5):

The presence or absence of any DNA material in an identifiable form in the flour is not of record in this application. The genomic structure of a plant is relevant when the DNA is cellular and in expressible form. Once the cells of the seed are destroyed through the processes used to produce flour, there is no evidence that the DNA is present or functional in any sense. It is important to note that whatever genomic material is left after the extensive mechanical processing of the wheat seeds is not in a form that is expressible or functional in any way, and is not imparting any special property or feature to the flour itself.

To this appellants argue (Reply Brief⁴, page 1):

if the genome of the genetically-engineered plant is retained in the claimed flour, such flour is necessarily different from the cited art flour derived from the wild-type plant ... [the 1998 Anderson] declaration, demonstrates that wheat flour will inherently contain the genome of the plant from which the flour is derived. Hence, the claimed flour, by virtue of its genome, is necessarily different from the cited art flour derived from the wild-type plant.

As we understand appellants’ argument, their patented wheat seed⁵, which is the source of the wheat flour, as set forth in claim 20, inherently contains a “genome” that is different from the cited art. Accordingly, this distinctive genome will give the claimed wheat flour a genetic “fingerprint” that is

⁴ Paper No. 18, received January 20, 1999.

⁵ See the ‘558 patent, claim 17.

different from the cited art. In contrast, the examiner suggests that the milling process will disrupt or destroy the structure of the genome and therefore the genetic “fingerprint” of the claimed wheat flour is indistinguishable from the prior art.

The examiner however, has provided no evidence to support the position that the milling process will mechanically disrupt the seed’s genome. Similarly, we are not persuaded by the 1998 Anderson Declaration, that states (paragraph 2), “milling the seeds into flour does not make the genome go away.” While the genome may not “go away” it may be mechanically disrupted so that it is structurally/biochemically indistinguishable from that of the prior art. We note that “[w]here a product-by-process claim is rejected over a prior art product that appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Best, 562 F.2d [1252,] 1255, 195 USPQ [430,] 433[(CCPA 1977)].” In re Marosi, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983).

On this record, however, the examiner has not made a sufficient finding of fact that the milling process will mechanically disrupt the seeds genome. Instead, the examiner merely concludes that the genome will be destroyed (see Answer, page 5) without providing any evidence to support this position. Accordingly, we remand this application to the examiner to reconsider this rejection and to determine if in fact the milling process will mechanically disrupt the genome of the seed so that the claimed wheat flour is genetically

indistinguishable from the prior art wheat flour. If the examiner is able to establish a prima facie case of anticipation, the burden will shift to appellants to “prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.” In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986).

Other Issue:

We are not persuaded by appellants’ arguments (Brief, page 4) and evidence (1997 Anderson Declaration⁶) relating to unexpected results. The rejection was made under 35 U.S.C. § 102(b), “[t]he discovery of an unobvious property or use of a previously known composition, even when that property and use are unobvious from the prior art, can not impart patentability to claims to the known composition.” In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). However, if upon further prosecution, a difference between the

⁶ Brief, Appendix D.

prior art and the claimed invention is demonstrated, we would agree with the examiner (Answer, page 5) “there are no direct comparisons of the flour of the invention with the flours of the prior art.” When unexpected results are used as evidence of nonobviousness, the results must be shown to be unexpected compared with the closest prior art. In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). We also agree with the examiner (Answer, page 6) that “[i]n order to fairly compare the mixing times of the two [flours tested], the total glutenin content should be the same or similar.” We are not persuaded by appellants statement that the examiner (Brief page 4) “prefer[s] playing the role of a reviewer of a manuscript submitted for publication, challenging the declaration, inter alia, for not specifying detail of various experimental conditions....” Instead, we remind appellants, as set forth in In re Freeman, 474 F.2d 1318, 1324, 177 USPQ 139, 143 (CCPA 1973):

In order for a showing of “unexpected results” to be probative evidence of non-obviousness, it falls upon the applicant to at least establish: (1) that there actually is a difference between the results obtained through the claimed invention and those of the prior art; and (2) that the difference actually obtained would not have been expected by one skilled in the art at the time of the invention. [Emphasis added].

Therefore, if declaratory evidence is to be relied upon by appellants, we would encourage appellants to comply with the guidance provided above.

We are not authorizing a Supplemental Examiner’s Answer under the provisions of 37 CFR § 1.193(b)(1). Any further communication from

the examiner that contains a rejection of the claims should provide appellants with a full and fair opportunity to respond.

This application, by virtue of its “special” status, requires an immediate action. MPEP § 708.01 (7th ed., rev. 1, February 2000). It is important that the Board be informed promptly of any action affecting the appeal in this case.

REVERSED and REMANDED

Sherman D. Winters)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
William F. Smith)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
)	
Donald E. Adams)	
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