

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VIKTOR DENK and ULRICH GANS

Appeal No. 2002-0952
Application No. 08/929,108

ON BRIEF

Before PAK, DELMENDO, and JEFFREY T. SMITH, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2002) from the examiner's final rejection of claims 36 through 39, 41, 42, 44, and 45, which are all of the claims pending in the above-identified application.

The subject matter on appeal relates to "a method for raising the filtrate throughput in a crossflow membrane filter in a filter module of a filtration plant during the filtration

of beer.” Further details of this appealed subject matter are recited in representative claim 45, the only independent claim on appeal, reproduced below:

45. A method for raising the filtrate throughput in a crossflow membrane filter in a filter module of a filtration plant during the filtration of beer by releasing a covering layer built up on a filter membrane from the filter membrane, wherein beer is passed through the filter membrane from an unfiltrate side of the membrane to a filtrate side of the membrane thereby building up a cake of materials on the unfiltrate side of the membrane and thereby creating a transmembrane pressure over the filter membrane, the method comprising the steps of:

- a) interrupting the flow of beer through the filter membrane;
- b) separating the filter module from the filtration plant;
- c) removing the beer from the filter module while maintaining circulation of the beer in the plant;
- d) introducing into the filter module an agent for dissolving chemical bonds between the cake of materials and the membrane;
- e) maintaining said agent within the filter module in a concentration, at a temperature and for a time sufficient to loosen the cake of materials from the membrane without completely dissolving the cake of materials;
- f) back flushing the membrane with rinsing liquid from the filtrate side to the unfiltrate side of the membrane to remove the cake of materials from the membrane and into the filter module;
- g) removing the cake of materials from the filter module;
- h) connecting the filter module with the filtration plant;
- i) resuming the flow of beer through the filter membrane; and
- j) repeating steps a) to i) in the same filtration run.

Additionally, Daoud teaches (column 3, lines 38-41):

It is anticipated that it will be possible to clean such filters, in between brewing runs, by using the same sorts of detergent (acid or alkali), as are presently used on other items of brewing equipment. [Emphasis added.]

The appellants point out that Daoud's method differs from the invention recited in the appealed claims in that (1) the prior art method is directed to the filtration of wort, as distinguished from beer, and (2) the prior art method does not repeat steps a) to i) in the same filtration run as recited in step j) of appealed claim 45. (Appeal brief filed Dec. 6, 2000, paper 33, pages 3-4.)

With respect to the first difference, the examiner takes the position that "it would be obvious to apply the cleaning methods taught by Daoud to beer filtration process" because "Daoud even states that 'the separation of solids from the wort by cross-flow or other conventional filtration methods is not different from that encountered in the filtration of...beer.'" (Answer, page 8; quoting Daoud's column 5, lines 29-32.)

Regarding the second difference, the examiner holds:

While Daoud mentions using basic or acidic cleaning solutions at the end of the filtration run, he is silent as to their use during the filtration run. Appellants essentially claim a continuous filtration method whereby the filter module is isolated during the filtration of beer, the filter is cleaned and then the beer [sic] resumes its

processing. As such, courts have held that those in the art are motivated in the art to convert batch processes to continuous process by well known means. In re Korpi, 73 U.S.P.Q. 229 (1947). It is therefore considered that those in the art would find it obvious to continuously filter by using the well known means known in the cited prior art. Lastly, it is noted that the claimed steps are not required to occur in the order in which they are recited. (Answer, page 6.)

We cannot agree with the examiner's analysis and conclusion. Appealed claim 45 expressly requires steps a) through j) to be performed and repeated "in the same filtration run." In this regard, the present specification makes it clear to one skilled in the relevant art that the phrase "during the filtration" or "same filtration run" refers to a single filtration run and not a series of discrete filtration runs performed continuously. (Page 6, line 24 to page 8, line 14; page 12, line 9 to page 15, line 18.) Although Daoud states that it is possible to clean the filters with a detergent (acid or alkali) in between brewing runs (column 3, lines 38-41), the examiner has not identified any teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to perform such cleaning in combination with back flushing in the same filtration run.

For these reasons, we hold that the examiner has not made out a prima facie case of obviousness within the meaning of 35

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U.S.C. § 103(a). In re Piasecki, 745 F.2d 1468, 1471-72, 223
USPQ 785, 787-88 (Fed. Cir. 1984).

The decision of the examiner to reject appealed claims 36
through 39, 41, 42, 44, and 45 under 35 U.S.C. § 103(a) as
unpatentable over Daoud is reversed.

REVERSED

Chung K. Pak)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Romulo H. Delmendo)	
Administrative Patent Judge)	APPEALS AND
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