

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

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BILLY DEAN ARNOLD

Appeal No. 2003-1381
Application No. 09/577,427

ON BRIEF

Before KIMLIM, TIMM and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 23-50. Claims 1-22 have been cancelled.

Claim 23 is illustrative of the subject matter on appeal and is set forth below:

23. A nonwoven web composite, comprising:

a plurality of side-by-side bicomponent multilobal fibers including a higher melting component on a first side, a lower melting component on a second side, and an interface between the higher and lower melting components;

each of the multilobal fibers including a multilobal region on the first side and an opposing rounded region on the second side, the multilobal region including at least one pair of raised lobal regions and a depressed region between each pair of raised lobal regions; and
a plurality of monolobal fibers.

On page 5 of the brief, appellant requests that claims 23-50 be considered together. Hence, we consider claim 23 in this decision. 37 CFR § 1.192(c)(7)(8)(2000).

Claims 23-40 and 42-50 stand rejected under 35 U.S.C. § 103 as being unpatentable over Midkiff in view of Powers.

Claim 41 stands rejected under 35 U.S.C. § 103 as being unpatentable over Midkiff in view of Powers and further in view of Largman.

The examiner relies upon the following references as evidence of unpatentability:

Largman	5,069,970	Dec. 3, 1991
Powers	5,580,459	Dec. 3, 1996
Midkiff	5,707,735	Jan. 13, 1998

OPINION

Critical to the determinations made in this decision, is the issue of whether it would have been obvious to make a nonwoven web composite comprising a mixture of (1) bicomponent multilobal fibers and (2) monolobal fibers. It is not disputed that Midkiff teaches a filter matrix of bicomponent multilobal fibers. (Brief, page 5). Our focus, therefore, is on the teachings of Powers. We do not comment on Largman as Largman is not pertinent to the resolution of this particular issue.

On pages 5-6 of the Brief, appellant argues that Midkiff does not teach to add monolobal fibers to bicomponent multilobal fibers and that Powers also does not teach to add monolobal fibers to bicomponent multilobal fibers. See also pages 1-4 of the Reply Brief. On page 7 of the Brief, appellant states that he has recognized that increased levels of monolobal fibers result in decreased filter efficiency when added to multilobal fibers.

In response, on page 5 of the Answer, the examiner states that Powers teaches that adding monolobal fibers controls the pore size of the web, which in turns customizes the filter efficiency. The examiner states this would be true whether the filter efficiency is increased or decreased by adding the monolobal fibers, since these are methods of customizing the filter efficiency, which is related to the overall pore size of the web.

Upon our review of Powers, we find that Powers teaches that ". . . it has been found that the microfiber may be used to customize the porosity of the bicomponent fiber matrix. Average pore size may be adjusted by varying the level or diameter of the microfiber." See column 4, lines 15-18. Powers also teaches that "[a]ccording to the present invention, filtration structures may be customized to a desired filter efficiency by using microfiber to control pore size of the bicomponent fiber matrix". See column 2, lines 19-22. Hence, Powers teaches that the porosity can be customized depending upon factors such as the amount of microfibers and size of the microfiber, and that filter efficiency can be adjusted according to porosity. Hence, we agree with the examiner that Powers teaches that the use of monolobal fibers is a factor in customizing filter efficiency.

Powers also teaches that the bicomponent fiber that can be used in the matrix can be a "multi-segmented" bicomponent fiber. See column 3, lines 55-58. Appellant has not argued or shown that this multi-segmented bicomponent fiber disclosed in Powers is not a multilobal fiber. Absent evidence to the contrary, we find that Powers' teaching of a multi-segmented bicomponent fiber encompasses appellant's claimed multilobal fiber. Therefore, contrary to appellant's position that the applied art does not teach a mixture of a multilobal fibers and monolobal fibers, we find that Powers suggests such a mixture.

We have carefully considered appellant's argument that he has recognized an advantage which is the complete opposite of teachings of Powers, i.e., that increased levels of monolobal fibers will result in decreased filter efficiency when added to multilobal fibers. (Brief, page 7.)

We do not find that Powers teaches that increased levels of monolobal fibers to multilobal fibers will only increase filter efficiency. As stated above, Powers states that "filtration structures may be customized to a desired filter efficiency by using microfiber to control pore size of the bicomponent fiber matrix". See column 2, lines 19-22. Also, Powers teaches that "[a]verage pore size may be adjusted by varying the level or diameter of the microfiber." See column 4, lines 15-18. Appellant's statement that Powers teaches that increased levels of monolobal fibers to multilobal fibers will only increase filter efficiency does not take into consideration other factors, such as fiber size, which can effect filter efficiency. Furthermore, we note that where general conditions of the appealed claim are disclosed in the prior art, it is not inventive to discover optimum or workable ranges by routine experimentation, and appellants have the burden of proving any

criticality. In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 218-19 (CCPA 1980); In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Here, appellant's have not met this burden.

In view of the above, we affirm each of the art rejections.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)

AFFIRMED

EDWARD C. KIMLIN)
Administrative Patent Judge)
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) BOARD OF PATENT
) APPEALS AND
CATHERINE TIMM) INTERFERENCES
Administrative Patent Judge)
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BAP/sld

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