

**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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LYNN R. SKOW, ARTHUR R. MOORE  
and WILLIAM M. DUNBAR

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Appeal No. 96-1883  
Application 08/078,380<sup>1</sup>

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ON BRIEF

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Before LYDDANE, ABRAMS and McQUADE, *Administrative Patent Judges*.  
ABRAMS, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is an appeal from the decision of the examiner finally rejecting claims 1, 2, 5, 8, 15, 17, 18, 22, 25, 28 through 32,

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<sup>1</sup>Application for patent filed June 22, 1993. According to appellants, this application is a continuation-in-part of Application 07/914,765 filed July 15, 1992, now abandoned.

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34 and 35.<sup>2</sup> Claims 3, 4, 12 through 14, 16 and 36 have been canceled, and claims 6, 7, 9 through 11, 19 through 21, 23, 24, 26, 27 and 33 stand withdrawn from consideration as being directed to a non-elected species.

The appellants' invention is directed to an apparatus and method for handling and operating on an article. The subject matter before us on appeal is illustrated by reference to claim 1, which reads as follows:

1. An apparatus for handling and operating on an article comprising a member having a working surface, an opposing surface, and at least one orifice beginning from at least one inlet, passing through the member, and having at least one outlet on the working surface to permit a fluid to enter the member through the inlet and pass through the orifice, wherein the fluid passing through the orifice handles and operates on an article located adjacent the working surface while preventing the article from contacting the working surface, wherein the member is a web comprising a plurality of stacked layers having major surfaces and connected to each other along the major surfaces, wherein the working surface comprises an outer major surface of one of the stacked layers, wherein the orifice is formed by respective openings in adjacent layers and is nonlinear to create an angular, nonlinear, stepped path for the fluid, and wherein a direction of any fluid that exits the outlet is caused by the angular, nonlinear, stepped path.

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<sup>2</sup>Two amendments made after the final rejection were entered for purposes of appeal, but did not alter the examiner's position regarding the patentability of the claims over the cited reference (see Paper No. 31). Claim 36, which was canceled by the appellants in Paper No. 30, erroneously was included in the appendix of claims attached to the Replacement Brief.



**OPINION**

*The Rejections Under Section 112*

The examiner asserts that certain of the subject matter recited in the claims fails to find support in the specification, and therefore the claims run afoul of the first paragraph of Section 112. It is the examiner's position that

[t]he specification fails to adequately teach in what respect the path [of the fluid] is "angular" and "non-linear", and how the path is both "angular" and "non-linear" (Answer, page 5, emphasis in the original).

We find ourselves in agreement with the appellants that this is not a valid criticism of the specification. With reference to Figure 1A and the explanation thereof found in the appellants' specification, for example, it is our view that one of ordinary skill in the art would readily have understood the meaning of these terms. That is, the path of the fluid from plenum chamber 26 into the space between working surface 14 and bottom surface of the article being conveyed is "angular," in that its overall direction is upward and downstream. It also is "non-linear" in that this overall direction is achieved by traveling in several paths, which are "stepped" with respect to one another. These are illustrated in Figure 1A by the sinuous arrows from plenum 26 through opening 40 into orifice 18, and between orifice 18

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through opening 22 into the space between working surface 16 and the bottom surface of the article being conveyed.

We therefore will not sustain the rejection under 35 U.S.C. § 112, first paragraph.

All of the claims also stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Here, the examiner's position is that the terms angular, non-linear and stepped

appear to contradict one another, in that a stepped path is clearly linear, comprising a plurality of usually rectilinear lines serially connected at usually approximately right angles (Answer, sentence bridging pages 5 and 6).

The comments we made above regarding these terms when discussing the rejection under the first paragraph of Section 112 also are relevant here. The purpose of 35 U.S.C. § 112, second paragraph, is to insure that the public is apprised of exactly what the patent covers, so that those who would approach the area circumscribed by the claims of a patent may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance. See *In re Hammack*, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970). It is our view that the claims of the present application comply with this requirement, and therefore we will not sustain the rejection under the second paragraph of 35 U.S.C. § 112.

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*The Rejection Under 35 U.S.C. § 102(b)*

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of the claimed invention. See *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed sub nom., *Hazeltine Corp. v. RCA Corp.*, 468 U.S. 1228 (1984). A reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention. *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 1362 (1996), quoting from *In re LeGrice*, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962).

The appellants have set out two arguments with regard to the rejection of claim 1 as being anticipated by Whelan. Both of these are based upon the appellants' belief that the holes (148, 150, 152 and 154) which exhaust onto the working surface are simple cylinders, which are not at an angle to the working surface (Replacement Brief, page 6). We do not agree. Not only are these holes illustrated in the drawings as being at an angle (Figure 5), but they are described in Whelan's claim 1 as being

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"slanted." Moreover, it is clear from the explanation of the Whelan invention that the holes must be inwardly or outwardly slanted, so as to be able to move the articles inwardly and outwardly on the work surfaces (column 5, line 17 *et seq.*). This being the case, the appellants' conclusion that an angular, nonlinear, stepped path cannot be created is not persuasive. To the same extent as this is present in the appellants' invention, so too, in our view is it present in Whelan. The appellants' argument that the Whelan holes do not impart direction to the articles also fails, for it is clear that such is not the case.

The rejection of claim 1 as being anticipated by Whelan is sustained. Since the appellants have chosen to group claims 2, 8, 15, 17, 18, 22, 25 and 34 with claim 1 (Replacement Brief, page 6), the rejection is also sustained as to these claims. We note that the appellants have not mentioned claim 35 in the required grouping of claims. This claim depends from claim 34, which has been included in the grouping, and we thus shall assume this was an inadvertent omission, and will sustain the examiner's rejection of claim 35 along with the group.

*The Rejection Under 35 U.S.C. § 103*

The question under 35 U.S.C. § 103 is not merely what the references expressly teach but what they would have suggested to

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one of ordinary skill in the art at the time the invention was made. See *Merck & Co., Inc. v. Biocraft Laboratories, Inc.*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989) and *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). While there must be some suggestion or motivation for one of ordinary skill in the art to combine the teachings of references, it is not necessary that such be found within the four corners of the references themselves; a conclusion of obviousness may be made 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. See *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969). Further, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. *In re Sovish*, 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985). Insofar as the references themselves are concerned, we are bound to consider the disclosure of each for what it fairly teaches one of ordinary skill in the art, including not only the specific teachings, but also the inferences which one of ordinary skill in the art would reasonably have been expected to draw therefrom. See *In re Boe*, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966); and *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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Claim 5 adds to claim 1 the requirement that the member upon which the articles are moved be flexible. Here we do not agree with the examiner's position. It is our view that this feature of the appellants' invention is neither explicitly taught by Whelan, nor would Whelan have suggested it to one of ordinary skill in the art.

This rejection of claim 5 is not sustained.

Claims 28 through 32 have been grouped together by the appellants. Claims 28 through 31 add to claim 1 a limitation establishing a numerical value for the angle between the outlet and the working surface (the "effective angle"), and a numerical relationship between the length and the width of the outlet in the working surface. Claim 32 defines the effective angle in terms of the speed at which the issuing stream propels the article to be transported. In view of their being grouped together, we need focus only upon claim 28, as being representative.

We begin our analysis here by noting that the appellants' have, on pages 1 and 2 of the substitute specification (Paper No. 21), discussed certain patents, after which they acknowledged the presence in the prior art of article handling devices in which the fluid issues from openings in the working surface at "smaller

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acute angles of less than 30E" (page 2), which includes the 20 degree angle specified in claim 28 as well, we might add, as the lesser angles recited in claims 29 through 31. Thus, it would appear to us from this statement that one of ordinary skill in the art would have found it *prima facie* obvious to utilize the angles set forth in the appellants' claims in this type of article-carrying device, depending upon the results desired, such as the distance the article is carried from the working surface and the speed at which it is moved. The same rationale applies to the ratio between the length and width of the openings. In arriving at this conclusion, we note that the appellants have not disclosed in their specification or urged in their Brief that the values set forth in claim 28 are critical in that they produce unexpected results. Rather, they distinguished their invention on the basis of the following statement made on page 2 of the substitute specification:

None of the known systems . . . is formed of a plurality of layers . . . which can be made flexible. None . . . disclose outlets which can have relatively small length-to-width ratios while ejecting air at small acute angles, and none discloses outlets that create an angular, non-linear stepped path for the fluid.

However, Whelan is not among the references cited as demonstrating the state of the art, and thus the quoted comment

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does not apply to its teachings. This is important for, as we explained above, while Whelan does not teach a flexible working surface, it does teach any outlets that are not circular and that eject air at an angle to the working surface, as well as an angular, non-linear stepped path for the fluid, and these are the distinctions which the appellants urge are not present in the prior art.

The rejection of claims 28 through 32 under 35 U.S.C. § 103 is sustained.

We have, of course, carefully considered all of the arguments raised by the appellants. However, they have not convinced us that the examiner's decision with regard to the rejections which we have sustained were in error. Our position with respect to each of the appellants' arguments should be apparent from the foregoing discussions.

*Summary*

The rejection under 35 U.S.C. § 112, first paragraph, is not sustained.

The rejection under 35 U.S.C. § 112, second paragraph, is not sustained.

The rejection under 35 U.S.C. § 102(b) is sustained.

The rejection of claim 5 under 35 U.S.C. § 103 is not

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sustained.

The rejection of claims 28 through 32 under 35 U.S.C.  
§ 103 is sustained.

The decision of the examiner is affirmed-in-part.

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

**AFFIRMED-IN-PART**

WILLIAM E. LYDDANE	)	
Administrative Patent Judge)	)	
	)	
	)	
NEAL E. ABRAMS	)	BOARD OF PATENT
Administrative Patent Judge)	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
JOHN P. McQUADE	)	
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