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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte JOHN D. JENSEN

Appeal No. 95-4113
Application No. 08/124,334[1]

HEARD: December 9, 1997

Before STONER, Chief Administrative Patent Judge, and McQUADE and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 4, 5, 6, 8, 9, 13, 21, 22, 23 and 26 through 29. Claims 17, 19, 20, 30, 31 and 32 have been allowed. Claims 3, 12 and 25 have been objected to as depending from a non allowed claim. Claims 2, 7, 10, 11, 14, 15, 16, 18 and 24 have been canceled.

[1] Application for patent filed September 20, 1993.

We REVERSE.

BACKGROUND

The appellant's invention relates to bonding plastic webs. Claims 1, 21, 22 and 23 are representative of the subject matter on appeal and a copy of those claims, as they appear in the appendix to the appellant's brief, is attached to this decision.

The prior art references of record relied upon by the examiner as evidence of obviousness under 35 U.S.C. § 103 are:

McDowall	2,459,234	Jan. 18, 1949
Pommer	3,066,064	Nov. 27, 1962
Podvin	3,850,716	Nov. 26, 1974
Pennington	4,240,855	Dec. 23, 1980

Claims 1 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over McDowall in view of Pommer.

Claims 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over McDowall in view of Pommer as applied above, further in view of Pennington.

Claims 8, 9, 13, 21, 22, 23 and 26 through 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over McDowall, Pommer and Pennington as applied above, further in view of Podvin.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the § 103 rejections, we make reference to the examiner's answer (Paper No. 15, mailed April 20, 1995) for the examiner's complete reasoning in support of the rejections, and to the appellant's brief (Paper No. 14, filed March 28, 1995) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the appealed claims. Accordingly, we will not sustain the examiner's rejection of claims 1, 4, 5, 6, 8, 9, 13, 21, 22, 23 and 26 through 29 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of

obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 9 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned

against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Products Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

Independent claim 1 includes the limitation of impinging a thin, highly intense flame on the drum and edge portions of the superposed webs by directing it upwardly at an acute angle against the drum and the edge portions. Independent claim 22 includes the limitation of directing a set of circumferentially spaced flames upwardly at an angle of from 90° to 60° relative to the axis of drum rotation against the section edge of the large drum and the trimmed portions of the folded web as they project from the section. Independent claim 23 includes the limitation of impinging a thin, highly intense flame on the edge portions of the superposed webs by directing it upwardly against the edge portions to directly heat one of the edge portions while connectively heating another edge portion shielded from the flame by the one edge portion, the flame being emitted from a nozzle, including an outlet tip portion having an axis disposed in a radial plane which includes the axis of drum rotation and the tip

axis also being at an acute angle with the axis of drum rotation. Independent claim 21 includes the limitations that the set of circumferentially spaced nozzles each include a tip having an axis generally disposed in a radial plane of the drum, the plane including the axis of drum rotation; the tips each being disposed within an imaginary cylindrical extension of the drum surface extending outwardly from the side edge of the drum in a direction away from the remote side; and the tips each being oriented to direct a flame toward[2] a side of the drum and the cylindrical extension at a location near the edge whereby to impinge on superposed, juxtaposed edge portions of the web projecting from the surface past the side edge.

With respect to the above-identified limitations from independent claims 1, 21, 22 and 23, the examiner determined that

> [i]t would have been obvious to one having ordinary skill in the art to have positioned the flame nozzle taught by McDowall at an acute angle, since Pommer recognizes the desirability of impinging a flame

[2] We interpret the phrase "the tips each being oriented to direct a flame toward a side of the drum and the cylindrical extension at a location near said edge" as requiring the tips to be an acute angle with respect to the axis of drum rotation so that the tips will direct the flames upwardly against the drum and the lower surface of the web.

> against a web edge at an acute angle to improve sealing. [answer, p. 3]

Our review of McDowall and Pommer reveals that the teachings therein would not have rendered the above-identified limitations obvious to one of ordinary skill in the relevant art at the time of the appellant's invention. In that regard, we see no teaching in Pommer that would have suggested modifying the angle of McDowall's openings 54 to be an acute angle instead of the 90° shown in Figure 2. Contrary to the examiner's assertions, we find no teaching in Pommer that would suggest that the flames projecting from holes 69 drilled in the beveled corner 68 of the burner 65 improve sealing as to flames directed at a 90° angle to the web. Thus, while Pommer discloses impinging a flame downwardly against a web edge at an acute angle, Pommer does not recognize any benefit therefrom. Accordingly, we see no motivation in Pommer, or the other applied prior art, of why one skilled in the art would have modified the device of McDowall to have positioned the openings 54 at an acute angle so that the flames would extend upwardly against or toward the drum and the web. Thus, it appears to us that the examiner has engaged in a hindsight reconstruction of the claimed invention. This, of

course, is impermissible.[3] Since the examiner's rejection was based upon an erroneous obviousness determination, the examiner has failed to meet the initial burden of presenting a prima facie case of obviousness.[4] Thus, we cannot sustain the examiner's rejection of appealed independent claims 1, 21, 22 and 23, or claims 4, 5, 6, 8, 9, 13 and 26 through 29 which depend therefrom, under 35 U.S.C. § 103.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 4, 5, 6, 8, 9, 13, 21, 22, 23 and 26 through 29 under 35 U.S.C. § 103 is reversed.

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[3] In re Fine, supra; In re Warner, supra.

[4] Note In re Rijckaert, supra; In re Lintner, supra; and In re Fine, supra.

REVERSED

BRUCE H. STONER, JR. Chief, Administrative Patent Judge	)	
JOHN P. McQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

Appeal No. 95-4113
Application No. 08/124,334

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APPENDIX

1. A process of bonding plastic webs comprising:

a) passing a plurality of superposed webs over a surface of a rotating metal drum while maintaining edge portions of the webs outwardly of and projecting laterally from an edge of the surface;

b) impinging a thin, highly intense flame on the drum and edge portions by directing it upwardly at an acute angle against the drum and the edge portions to directly heat one of the edge portions while connectively heating another edge portion shielded from the flame by the one edge portion; and

c) continuing to heat the edge portions until they are fused.

21. A machine for fusing superposed and juxtaposed layers of plastic together comprising:

a) a rotatable drum including a cylindrical web engagement surface extending from one side edge toward a remote side of the drum, a section of the surface forming a segment of a web path of travel;

b) supply and output rolls positioned along the path of travel respectively upstream and downstream from the drum;

c) means to tension a web section engaging said surface and feed the web section at a speed equal to the surface speed of the surface;

d) a set of circumferentially spaced nozzles each including a tip having an axis generally disposed in a radial plane of the drum, the plane including an axis of drum rotation;

e) the tips each being disposed within an imaginary cylindrical extension of the surface extending outwardly from the side edge in a direction away from the remote side; and

f) the tips each being oriented to direct a flame toward a side of the drum and the cylindrical extension at a location near said edge whereby to impinge on superposed, juxtaposed edge portions of a web projecting from the surface past said side edge.

22. A process of converting a clear polyethylene web folded treated surface to treated surface as steps in the manufacture of sleeve labels comprising

a) feeding the web along a path from a supply to and around a hardened cylindrical roll while rotating the roll at a surface speed equal to the lineal speed of web feed;

b) biasing a score cutter against the web as it passes around the roll thereby flush trimming edge portions of the web remote from the fold and tacking the edge portions together;

c) feeding the trimmed web over a large drum having a cylindrical surface web engagement section while rotating the drum to produce a surface speed of the section equal the lineal speed of web travel;

d) causing said trimmed portions to project outwardly past an edge of the section as the web is fed over the drum;

e) fusing the trimmed portions by directing a set of circumferentially spaced flames produced by stoichiometric mixtures of hydrogen and oxygen upwardly at an angle of from 90° to 60° relative to the axis of drum rotation against the section edge and the trimmed portions as they project from the section; and,

f) causing the drum section to function as a heat sink to maintain remaining portions of the web other than the trimmed portions sufficiently cool to avoid distortion of the web surface treatment and size modification of the remaining portions.

23. A process of bonding plastic webs comprising:

a) passing a plurality of superposed webs over a surface of a rotating metal drum while maintaining edge portions of the webs outwardly of and projecting laterally from an edge of the surface;

b) maintaining the webs under tension as they are passed over the drum to maintain the webs in tight, non slip relationship with the drum through tension alone and without any hold down mechanism;

c) impinging a thin, highly intense flame on the edge portions by directing it upwardly against the edge portions to directly heat one of the edge portions while connectively heating another edge portion shielded from the flame by the one edge portion, the flame being emitted from a nozzle, including an outlet tip portion having an axis disposed in a radial plane

which includes the axis of drum rotation and the tip axis also being at an acute angle with the axis of drum rotation; and

d) continuing to heat the edge portions until they are fused.

APPEAL NO. 95-4113 - JUDGE NASE
APPLICATION NO. 08/124,334

APJ NASE

CAPJ STONER

APJ McQUADE

DECISION: **REVERSED**

Prepared By: Delores A. Lowe

DRAFT TYPED: 12 Dec 97

FINAL TYPED:

HEARD: 9 Dec 97