

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KRISHNAMOORTHY SUBRAMANIAN

Appeal No. 2001-0592
Application 09/110,824

ON BRIEF

Before ABRAMS, FRANKFORT, and BAHR, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 6, all of the claims pending in this application.

Appellant's invention relates to an abrasive belt

including a backing layer (typically formed of paper), an abrasive bearing layer (typically formed of a resin-based maker coat upon which are deposited abrasive grains before the resin is cured and a resin-based size coat that helps anchor the abrasive grains to the substrate when the resin-based layers are later cured), and a pattern of holes in the belt which pass through at least the abrasive bearing layer of the belt, in locations and in numbers sufficient to provide improved flexibility to the belt. As noted on page 1 of the specification, the problem confronted by appellant is the fact that the resin typically used on such abrasive belts tends to be very hard and inflexible, and thus results in a belt that is itself very stiff and inflexible. This creates a problem because such belts must necessarily pass around pulleys when in action. Although appellant notes on page 1 of the specification that other solutions to this problem have been proposed in the prior art, appellant urges that the present invention is a further solution to the problem that requires minimum disruption to existing processes and can simply be added to conventional production schemes. In addition,

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appellant notes that the present invention requires no flexing and cracking of the abrasive layers, thus avoiding the problem of crack patterns being developed which might propagate with disastrous results.

Independent claim 1 is representative of the subject matter on appeal and a copy of that claim can be found in the Appendix to appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Trinkle	2,178,381	Oct. 31,
1939		
Cherrington	2,189,754	Feb. 13,
1940		

Claims 1 through 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cherrington in view of Trinkle. The examiner notes that Cherrington discloses an abrasive belt, but fails to disclose a pattern of holes like

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that set forth in appellant's claims on appeal. Trinkle is relied upon as disclosing a coated abrasive paper having a pattern of holes (3) therein. The examiner concludes from the collective teachings of Cherrington and Trinkle that it would have been obvious to one of ordinary skill in the art at the time of appellant's invention to provide the belt of Cherrington with abrasive material having a pattern of holes in view of Trinkle so as to ensure that the heat generated by the belt is dissipated.

Rather than reiterate the examiner's full statement of the above-noted rejection and the conflicting viewpoints advanced by the examiner and appellant regarding the rejection, we make reference to the examiner's answer (Paper No. 9, mailed December 7, 1999) for the reasoning in support of the rejection, and to appellant's brief (Paper No. 8, filed November 19, 1999) for the arguments thereagainst.

OPINION

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In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determination which follows.

Having reviewed and evaluated the applied references, we are of the opinion that the examiner's position regarding the purported obviousness of claims 1 through 6 on appeal represents a classic case of the examiner using impermissible hindsight in order to reconstruct appellant's claimed subject matter. In our opinion, there is no motivation or suggestion in the applied patents to Cherrington and Trinkle which would have reasonably led one of ordinary skill in the art to modify the endless abrasive belt of Cherrington in the particular manner urged by the examiner based on the abrading device and wet process of abrading disclosed in Trinkle. Like appellant (brief, pages 6-11), we view the structure of the abrasive

device in Trinkle as being basically dictated by the wet process of abrading involved therein, which wet process has nothing to do with the endless grinding and polishing belt disclosed in Cherrington.

As for the examiner's rationale that it would have been obvious to one of ordinary skill in the art to provide the belt of Cherrington with a pattern of holes in view of Trinkle so as to ensure the heat generated by the belt is dissipated, we note that there is no indication in the Cherrington patent that heat build-up is a problem for the grinding and polishing belt disclosed therein and that in the device of Trinkle the holes are said to be "for liquid transmissivity" (page 1, col. 2, lines 46-48), with the liquid employed in the abrading process being described as the means for providing lubricative cooling to prevent local heating of the work and abrading device. The holes in the abrasive paper of Trinkle's device are also said to serve as a collection area for receiving the sludge produced during abrading, however, the belt in Cherrington has no need for such holes for this purpose either

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since the depressions (20) which extend along the length of the belt are indicated to greatly assist in disposing of the metal and emery dust removed when grinding (page 2, col.1, lines 10-17).

We note that the mere fact that the prior art could be modified in the manner urged by the examiner would not have made such modification obvious unless the prior art suggested the desirability of the modification. See In re Gordon, 773 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) and In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). In this case, it is our opinion that the examiner has impermissibly drawn from appellant's own teaching and fallen victim to what our reviewing Court has called "the insidious effect of a hindsight syndrome wherein that which only the inventor has taught is used against its teacher." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983).

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Since we have determined that the teachings and suggestions which would have been fairly derived from Cherrington and Trinkle would not have made the subject matter as a whole of claim 1 on appeal obvious to one of ordinary skill in the art at the time of appellant's invention, we must refuse to sustain the examiner's rejection of that claim under 35 U.S.C. § 103(a). It follows that the examiner's rejection of dependent claims 2 through 6 under 35 U.S.C. § 103(a) based on Cherrington and Trinkle will also not be sustained.

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In light of the foregoing, the decision of the examiner to reject claims 1 through 6 under 35 U.S.C. § 103(a) is reversed.

REVERSED

NEAL E. ABRAMS)
Administrative Patent Judge)
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) BOARD OF PATENT
CHARLES E. FRANKFORT)
Administrative Patent Judge) APPEALS AND
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) INTERFERENCES
)
JENNIFER D. BAHR)
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