

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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YOSHIHISA HARADA and HIROFUMI NAKAGOMI

Appeal No. 2001-2377
Application No. 08/967,023

HEARD: November 13, 2001

Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-3, as amended after the final rejection, which are all of the claims pending in this application.

We AFFIRM and designate our affirmance to be a new ground of rejection under 37 CFR 1.196(b).

BACKGROUND

The appellants' invention relates to a brake band. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced on page 3 of this opinion.

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

Oyanagi	5,076,882	Dec. 31, 1991
Nakagomi <u>et al.</u> (Nakagomi)	5,467,849	Nov. 21, 1995

Claims 1-3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Nakagomi in view of Oyanagi.¹

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the Answer (Paper No. 16) and the final rejection (Paper No. 7) for the examiner's complete reasoning in support of the rejection, and to the Brief (Paper No. 15) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the

¹An amendment after the final rejection resulted in the examiner withdrawing a rejection under 35 U.S.C. § 112, second paragraph.

respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The appellants' invention relates to improvements in brake bands suitable for use in the transmission of a vehicle or the like. Independent claim 1 reads as follows:

A brake band comprising a strap and a lining bonded on an inner peripheral surface of said strap, and a groove formed in said lining, said groove having a bottom surface at a predetermined height above said inner peripheral surface of said strap.

It is the examiner's position that the above construction would have been obvious in view of the combined teachings of Nakagomi and Oyanagi. The appellants argue otherwise. We find ourselves in agreement with the examiner's conclusion, however, we disagree with the examiner's reasoning, as explained below.

Nakagomi is directed to a brake band for use in a vehicle transmission. As is the case in the appellants' invention, this reference is concerned with the problem of controlling the presence of lubricating oil between the brake lining and the surface of the rotating element against which the lining is pressed during operation (columns 1 and 2). Where it is desired to minimize the presence of oil, the reference teaches that oil recesses in the form of grooves be provided in the linings, and that the grooves have oil apertures extending through the strap so that oil trapped in the groove when the lining is pressed against the rotating element will drain out of the groove (see column 2, line 65 et seq. and column 4, line 64 et seq.). The reference also teaches that where it is desired to maintain

a film of oil when the lining is pressed against the rotating element, “for promoting the formation of an oil film . . . The oil recess is, for example, in the form of a groove or aperture not extending to the outer peripheral surface of the brake lining” (column 3, lines 3-7, emphasis added). With reference to the several embodiments of the invention, it is stated in column 4 that there are grooves 80 which are not provided with any oil discharging aperture to serve as oil reservoirs (lines 47-49 and 57-59), and that there are oil apertures 80’ “not extending to a back side, i.e., an outer peripheral surface of the brake lining” so that they serve as oil reservoirs (line 65 et seq.). Figures 1-5 of the drawings reveal that some of the grooves (80) are provided with oil discharge apertures and some of the grooves (80) are not.

Using the language of claim 1 as a guide, Nakagomi discloses a brake band comprising a strap (3) and a lining (2) bonded on an inner peripheral surface of the strap, and a groove (80, Figures 1-3). With regard to the groove 80, by virtue of the teaching of the reference discussed immediately above, that is, a groove or aperture “not extending to the outer peripheral surface of the brake lining,” it is our conclusion that Nakagomi expressly teaches that an oil film can be maintained at desired locations between the brake lining and the surface of the rotating element against which it is being pressed by providing certain grooves 80 in the brake lining with, in the language of claim 1, “a bottom surface at a predetermined height above said inner peripheral surface of said strap.”

Nakagomi thus discloses or teaches all of the subject matter recited in independent claim 1 and, in fact, anticipates the claim.²

Anticipation being the epitome of obviousness³, we will sustain the rejection of claim 1 on the basis of Nakagomi. Since the appellants have elected to group dependent claims 2 and 3 with claim 1 (Brief, page 3), we also shall sustain the standing rejection of these two claims. However, because our reasoning differs from that set out by the examiner, we deem our affirmance to be a new rejection under 37 CFR 1.196(b).

In the interest of judicial economy, we wish to comment on the Oyanagi patent, which discloses friction bands in vehicle transmissions having oil retaining grooves that do not extend completely through the friction material (see Figures 3 and 4). Oyanagi explains that forming the oil grooves by the process of cutting results in a shape that is not stable, has abnormalities in cross-sectional shape, and can cause the frictional material to be discontinuous (see column 1, lines 49-57 and Figure 3). To overcome these problems, this reference teaches that it is desirable to form the oil grooves in the frictional material of a friction band by pressing, which results in a groove terminating in the lining material

² Anticipation is established when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

³In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982).

(column 2, lines 1-50; Figure 4). It therefore is our view that Oyanagi explicitly would have suggested to one of ordinary skill in the art that the oil grooves of Nakagomi which do not extend entirely through the lining be manufactured by pressing. The inherent result of such a process would be that the upper corner portions of the groove be curved surfaces, as shown in Figure 4.

Concerning the appellants' argument that Oyanagi is nonanalogous art (Brief, pages 5 and 6), we are of the opinion that, at the very least, Oyanagi would have commended itself to the attention of an inventor who was attempting to solve the problem of controlling oil retention between friction surfaces, and therefore is analogous art.⁴ In this regard, we point out that although Oyanagi is dealing with synchronizer rings in meshing type transmissions, the problem to which the invention is directed is analogous to the problem attacked by both the appellant and Nakagomi. To the extent that the arguments in the Brief are intended to express the opinion that there would have been no suggestion to combine the references, we point out that such would not apply to claim 1, where it is our

⁴The test for analogous art is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. See In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it logically would have commended itself to an inventor's attention in considering his problem because of the matter with which it deals. See In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992).

view that Nakagomi is anticipatory, or to claim 3, wherein explicit suggestion is present to form the grooves by compression.

In arriving at the aforementioned conclusions, we have carefully considered all of the arguments set out by the appellants. However, they have not persuaded us that the claims are patentable over the applied prior art.

SUMMARY

The rejection is sustained.

The decision of the examiner is affirmed but designated as a new rejection under 37 CFR 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b) (amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63,122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the

matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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

AFFIRMED, 37 CFR § 1.196(b)

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
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