

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAUL S. KNUTSON

Appeal 2006-2634
Application 10/294,537
Technology Center 1700

Decided: September 22, 2006

Before KIMLIN, KRATZ, and TIMM, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 18-24 and 26.¹

Claim 18 is illustrative:

18. A method of producing a power transmission belt comprising a rubber body, a strain-resisting tensile member embedded in the body, and an

¹Although the statement of the rejection in the Examiner's Answer includes a rejection of claim 25, Appellant properly points out in the Reply Brief that the Examiner has listed claim 25 as objected to in the Advisory Action of September 29, 2005. We also note that the Examiner's notation of Appellant's Reply Brief does not take issue with the "objected to" status of claim 25.

exterior belt back surface at which a textile reinforcement is positioned to lend lateral stability and minimized noise generation when the belt is run against a device such as a pulley or tensioner impinging against the exterior belt back surface, comprising:

- a) providing a belt building drum with a given outside diameter;
- b) providing a seamless tubular radially stretchable textile material the unstretched outer diameter of which is less than or equal to the outside diameter of the building drum;
- c) forming on the building drum a belt sleeve core by:
 - wrapping a first rubber layer about the building drum;
 - helically winding a strain-resisting tensile cord about the first rubber layer;
 - wrapping a second rubber layer over the helically wound tensile cord to form the belt sleeve core;
- d) radially stretching the seamless tubular textile material to an outside diameter exceeding the outside diameter of the building drum;
- e) positioning the seamless tubular textile material which has been pre-stretched, over the drum and in contact with one of said rubber layers forming a portion of the belt sleeve core, to form a vulcanizable belt sleeve;
- f) subjecting the belt sleeve to heat and pressure to vulcanize the same.

The Examiner relies upon the following references as evidence of obviousness:

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Rasero	US 4,174,739	Nov. 20, 1979
McGee	US 5,616,090	Apr. 1, 1997
Westhoff	US 5,645,504	Jul. 8, 1997
Tomiyama	US 5,714,024	Feb. 3, 1998

Appellant's claimed invention is directed to a method of making a power transmission belt, comprising, inter alia, radially stretching a seamless tubular textile material over the building drum for the belt. Using the seamless tubular textile material in the transmission belt, rather than a textile material formed with an overlapping seam, minimizes noise generation and lends lateral stability to the belt when the belt is running against a pulley or tensioner.

Appealed claims 18-24 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tomiyama in view of Rasero and Westhoff. Claim 22 stands rejected under 35 U. S.C. § 103(a) as being unpatentable over the stated combination of references further in view of McGee.

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed method of making a power transmission belt would have been obvious to one of ordinary skill in the art within the meaning of Section 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections for the reasons set forth in the Answer, which we incorporate herein, and we add the following primarily for emphasis.

There is no dispute that Tomiyama, like Appellant, discloses a method for making a power transmission belt comprising wrapping a first rubber layer about the building drum, helically winding a strain-resisting tensile cord about the first rubber layer, wrapping a second rubber (adhesive) layer over the helically wound

tensile cord, and positioning a textile material over one of the rubber layers, and then applying heat and pressure to vulcanize the rubber layers. As recognized by the Examiner, the fabric layer of Tomiyama is not a seamless tubular textile material. However, Rasero and Westhoff, as well as the acknowledged prior art disclosed at page 3 of the present specification, 2nd ¶ evidence that it was well-known in the art to employ seamless tubular fabrics in making power transmission belts. As pointed out by the Examiner, Rasero expressly teaches that the seamless tubular fabric eliminates the need for splicing, and that “[i]n small modern machinery, such spliced belts are not suitable” (col. 4, ll. 50-51).

In our view, the collective teachings of the prior art support the Examiner’s legal conclusion that it would have been obvious for one of ordinary skill in the art to replace the seamed fabric of Tomiyama with the claimed seamless tubular textile material that was known in the prior art. We note Appellant’s acknowledgement that Westhoff “arguably uses similar materials as utilized in the method of claim 18” (Br. 8, last sentence).

As for Appellant’s argument that the cited references do not address Appellant’s problem of minimizing noise generation and providing lateral stability, we agree with the Examiner that Tomiyama’s recognition of noise generated by surface irregularities on the belt indicates that the noise generated by a seamed fabric would have been recognized by one of ordinary skill in the art. Also, the Background section of Appellant’s specification seems to indicate that the noise problem was known in the art. In any event, we are satisfied that the noise problem associated with a seamed fabric would have been readily apparent to one of ordinary skill in the art, as well as the solution of replacing the seamed fabric

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with the known seamless fabric. *In re Ludwig*, 353 F.2d 241, 244, 147 USPQ 420, 421 (CCPA 1965).

Concerning the lateral stability attributed to the use of a seamless tubular fabric, we agree with the Examiner that such advantage would have been necessarily attained by the obvious use of a seamless tubular fabric in the transmission belt of Tomiyama. Appellant contends that Rasero “does not even apply to a power transmission belt in which the load carrying member is built into the belt by helically winding a strain-resisting tensile cord about a rubber layer as called for in claim 18.” (Br. 6, ¶ 3). However, as explained by the Examiner, the focus of Rasero is the particular weave of the tubular fabric, and not the conventional steps of forming a transmission belt on a drum. Nonetheless, Rasero specifically teaches that the disclosed seamless tubular fabrics are used in power transmission belts. (See col. 1, l. 6 et seq.).

We are also not persuaded by Appellant’s argument that Westhoff does not apply to fabrics applied to the exterior back surface of the belt. The advantage of eliminating splicing discussed by Rasero would attach to any fabric material in a transmission belt. Furthermore, as noted by the Examiner, claim 18 on appeal does not require that the tubular fabric is applied to the exterior back surface of the belt. Claim 18 expressly states that the tubular textile material is positioned over the drum and in contact with one of the rubber layers, which can be the first rubber layer before the helically wound tensile cord and second rubber layer are applied.

The limitations of the separately argued dependent claims have been adequately addressed by the Examiner in the Answer.

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As a final point, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the Examiner.

In conclusion, based on the foregoing and the reasons well-stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2004).

AFFIRMED

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ECK:hh