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 JAMES C. STEBNICKI and ROBERT E. MITCHELL

Appeal 2006-2990
Application 11/005,250
Technology Center 3600

Decided: April 27, 2007

Before JENNIFER D. BAHR, STUART S. LEVY, and
LINDA E. HORNER, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

James C. Stebnicki and Robert E. Mitchell (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 2, 7-9, 11,

12, 17,[1] 18, and 20. Claims 3-6 and 10 stand allowed and claims 13-16 and 19, the only other pending claims, stand objected to as depending from a rejected claim. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

Appellants' Specification describes a side-flexing conveyor chain module that distributes tension across the width of the belt module (Specification [0006]). Claim 1 is illustrative of the claimed invention and reads as follows:

> 1. A side-flexing conveyor chain module comprising:
>
> a first module member having first link ends extending in a direction of conveyor travel and first fingers extending in a direction substantially opposite to the direction of conveyor travel, said first fingers having first cam surfaces; and
>
> a second module member pivotally coupled to said first module member about a module vertical axis, said second module member having second link ends extending in a direction substantially opposite to the direction of conveyor travel and second fingers extending substantially in the direction of conveyor travel and interdigitating with said first fingers, said second fingers having second cam surfaces engaging said first cam surfaces to transfer forces between said first and second module members

[1] Though not included in the Examiner's statement of the rejection, claim 17 stands rejected under 35 U.S.C. § 102(b), as evidenced by the Examiner's explanation of the rejection (Final Rejection 2; Answer 3).

The Examiner relies upon the following as evidence of unpatentability:

Lapeyre	US 4,153,152	May 08, 1979

Appellants seek review of the Examiner's rejections of claims 1, 2, 7, 8, 11, 12, 17, 18, and 20[2] under 35 U.S.C. § 102(b) as anticipated by Lapeyre and claims 9 and 18[3] under 35 U.S.C. § 103(a) as unpatentable over Lapeyre.

The Examiner provides reasoning in support of the rejections in the Answer (mailed June 9, 2006). Appellants present opposing arguments in the Appeal Brief (filed May 22, 2006) and Reply Brief (filed July 3, 2006).

THE ISSUE

The dispositive issue in this appeal is whether Lapeyre discloses first and second module members having first and second fingers, respectively, the first fingers having first cam surfaces and the second fingers having second cam surfaces engaging the first cam surfaces to transfer forces between the first and second module members. More specifically, the decision in this appeal hinges on whether the ribs 20 of adjacent links 10 of Lapeyre engage each other to transfer forces between the adjacent links. The Examiner contends that Lapeyre's ribs 20 of adjacent links 10 do contact one another to transfer forces (Answer 4 and 5). Appellants, on the other hand, contend that the ribs 20 of adjacent links do not cooperate with

[2] The Examiner's reference to claim "21" (Answer 3) appears to be an inadvertent error.
[3] It is not readily apparent why the Examiner rejected claim 18 under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a).

or contact one another to transfer forces between links (Appeal Br. 5-6; Reply Br. 4-5).

FINDINGS OF FACT

FF1. The objective of Appellants' invention is to prevent the outer most eye of the chain links and the shear point on the hinge pin from carrying the entire load of the chain tension when side-flexing, which can cause premature failure (Specification [0005]). Appellants' side-flexing chain 10 "distributes chain tension across the width of the chain modules 12 as the chain negotiates a curve. Each chain module 12 includes a first module member 14 pivotally linked to a second module member 16 about a module vertical axis 18." (Specification [0031]) The first module member 14 and second module member 16 include arcuate cam fingers 98 and 104, respectively, that interdigitate with one another (Specification [0036]). Each first module member cam finger 98 includes inner and outer cam surfaces 106, 108. The cam surfaces 106, 108 of the first module member fingers 98 slidably engage cam surfaces 116, 118 of the second module member fingers 104 to transfer forces between the first and second module members 14, 16. (Specification [0037])

FF2. Lapeyre discloses a conveyor made up of cooperative links that are pivoted about two mutually orthogonal axes to permit movement in a curved path within the plane of the conveyor and within planes transverse to the conveying plane. Each link is composed of two sections 12 and 14 hinged for pivotal movement about a horizontal pin 16. (Lapeyre, col. 3, ll. 4-15) Each link section 14 includes an array of spaced ribs 20 upstanding and extending horizontally therefrom (Lapeyre, col. 3, ll. 15-18 and Figs. 1-4).

FF3. Lapeyre (Lapeyre, col. 3, ll. 18-25) teaches:

> These ribs 20 are cooperative with like arrays of ribs on adjacent links 10 such that the ribs remain substantially in interdigitated meshing relationship during curved movement of the conveyor in the conveying plane thereby to provide an effectively continuous conveying surface without gaps in the conveying surface between the links through which articles can fall or become lodged.

FF4. None of the ribs 20 is illustrated in Fig. 1 of Lapeyre in contact with any rib of an adjacent link. Lapeyre's Fig. 1 shows gaps between all ribs 20 of adjacent links. Moreover, Fig. 1 appears to illustrate the sharpest possible angle between links, or, in other words, the smallest possible radius of curvature, as the radially inner most portions of facing surfaces of arm 24 of section 12 and arm 52 of section 14 are in contact with one another. Additionally, the outermost ribs 20 of adjacent links, shown at the top of Lapeyre's Fig. 1, in the region where gaps would be of greatest concern during curved movement of the conveyor, are illustrated close to but quite conspicuously out of contact with one another.

FF5. The term "mesh" has at least the following ordinary and customary meanings: "1 to entangle or become entangled 2 to engage or become engaged: said of gears or gear teeth 3 to fit closely together; interlock" (*Webster's New World Dictionary* 891 (David B. Guralnik ed., 2nd Coll. Ed., Simon & Schuster, Inc. 1984)).

FF6. Lapeyre's teachings (FF3) with regard to the "interdigitated meshing relationship" between arrays of ribs 20 on adjacent links 10 is at best ambiguous, when read as a whole, especially in light of the illustration in Fig. 1 (FF4), as to whether the ribs 20 of adjacent links actually contact or engage one another or merely fit closely together (*see* FF5). Lapeyre

describes the ribs as remaining substantially in said "interdigitated meshing relationship" during the curved movement of the conveyor in the conveying plane (FF3). As Lapeyre's Fig. 1 illustrates curved movement of the conveyor in the conveying plane, the ribs illustrated therein must be substantially in the "interdigitated meshing relationship" defined by Lapeyre. Accordingly, we find that a person of ordinary skill in the art would not have inferred from Lapeyre that actual contact between ribs 20 of adjacent links is required. Rather, such a person would have inferred only that the ribs of adjacent links remain sufficiently close to one another to prevent gaps between the links through which articles can fall or become lodged (FF3).

FF7. Absent the teachings of Appellants (FF1) of transferring forces between module members by engagement of interdigitated fingers of the module members to distribute tension forces across the width of the chain to thereby prevent concentration of forces on the outer most eye of the chain links and the shear point on the hinge pin, one skilled in the art would not have found suggestion in Lapeyre to have surfaces of the ribs 20 of adjacent links actually engage each other to transfer forces between links. Specifically, such contact would present a risk of binding and would not appear to be necessary to achieve the stated purpose of Lapeyre's ribs 20, namely, to prevent gaps between the links through which articles can fall or become lodged (FF6).

PRINCIPLES OF LAW

An anticipation rejection cannot be predicated on an ambiguous reference. Rather, disclosures in a reference relied on to prove anticipation must be so clear and explicit that those skilled in the art will have no difficulty in ascertaining their meaning. *In re Turlay*, 304 F.2d 893, 899, 134 USPQ 355, 360 (CCPA 1962).

Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved. In addition, the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. *See In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000).

ANALYSIS AND CONCLUSIONS OF LAW

The teachings of Lapeyre are, at best, ambiguous as to whether ribs 20 of adjacent links actually contact or engage one another to transfer forces between the links so as to satisfy the limitation in independent claims 1 and 11 of first and second module members having first and second fingers, respectively, the first fingers having first cam surfaces and the second fingers having second cam surfaces engaging the first cam surfaces to transfer forces between the first and second module members (FF3 through

FF6). Accordingly, the anticipation rejection of independent claims 1 and 11 cannot be predicated on Lapeyre. The rejection of claims 1 and 11, and claims 2, 7, 8, 12, 17, 18, and 20 depending from claims 1 and 11, as anticipated by Lapeyre thus cannot be sustained.

One skilled in the art would not have found suggestion in Lapeyre to have surfaces of the ribs 20 of adjacent links actually engage each other to transfer forces between links (FF7). The teachings of Lapeyre are thus insufficient to establish a prima facie case of obviousness of the subject matter of claims 9 and 18, which depend from claims 1 and 11, respectively. Accordingly, the rejection of claims 9 and 18 as unpatentable over Lapeyre also cannot be sustained.

SUMMARY

The decision of the Examiner to reject claims 1, 2, 7, 8, 11, 12, 17, 18, and 20 under 35 U.S.C. § 102(b) and claims 9 and 18 under 35 U.S.C. § 103(a) is reversed.

REVERSED

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