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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUNTHER HANTSCHK,
GUNTER FRANK and
BERND MAIER

Appeal No. 1998-0106
Application No. 08/377,753

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge, and ABRAMS and NASE, Administrative Patent Judges.

McCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 15 through 29.[1] In his corrected answer (Paper No. 17 mailed October 12, 1999), the examiner has indicated on page 6 that claims 19, 23, 25 and 27-29 are considered to be allowable subject to being rewritten in independent form. Accordingly, the only issue remaining

[1] Claim 15 has been amended subsequent to the final rejection. See Paper No. 8 filed December 3, 1996.

for our review is the propriety of the examiner=s rejection of claims 15-18, 20-22, 24 and 26.

Appellants= invention relates to A[a] universal joint coupling, especially for use on a universal joint shaft (10) of an eccentric worm machine@ (claim 15, lines 1-2). According to claim 15, the only independent claim on appeal, the universal joint coupling comprises inner and outer, torque-transmitting gear ring members (16, 26). External teeth on the inner gear member mesh with internal teeth on the outer gear member to provide for the transmission of torque.

Claim 15 additionally recites that the universal joint coupling includes a pair of axial force transmitting members, with each pair comprising a spherical cup (22) and a ball segment (24) supported in the cup. As disclosed in appellants= specification (see page 9), the outer gear ring and the spherical cups are non-rotatably attached to a housing (20) by feather keys (30a, 30b). Claim 15 specifies that the inner gear ring and the ball segments are integral parts of a hub (16).

A copy of the appealed claims is appended to appellants: brief.

The following references are relied upon by the examiner as evidence of obviousness in support of his rejection under 35 U.S.C. ' 103:

Schlecher et al. (Schlecher)	4,909,773	Mar. 20, 1990
Takeda	4,968,292	Nov. 6, 1990

Claims 15-18, 20-22, 24 and 26 stand rejected under 35 U.S.C. ' 103 as being unpatentable over Schlecher in view of Takeda. The examiner concludes that the teachings of Takeda would have made it obvious to Aprovide Schlecher et al with uneven circumferential spacing for the [feather] keys . . .@ (corrected answer, Paper No. 17, pages 5-6). Reference is made to the examiner:s corrected answer for further details of this rejection.

In support of patentability, appellants contend that Takeda constitutes non-analogous art (see page 14 of appellants: corrected brief, Paper No. 14 filed April 25, 1997). Appellants additionally argue that Takeda lacks a teaching or suggestion of the modifications necessary to

arrive at the invention defined in claim 15 (see pages 17-18 of the corrected brief).

We have carefully considered the issues raised in this appeal together with the examiner=s remarks and appellants= arguments. As a result, we conclude that the rejection of the appealed claims cannot be sustained. Our reasons for this determination follow.

The Schlecher patent discloses a universal joint coupling which is generally similar to appellants= coupling. This reference, however, lacks a disclosure of the following features in appealed claim 15:

1. The recitation in the third from the last clause of claim 15 that the spherical cup of force transmitting pair of members, which is subject to a higher load, is joined to the outer gear ring by means that ensures that only one position of the spherical cup relative to the outer gear ring is possible upon initial assembly and upon reassembly after a disassembly; and

2. The recitation in the penultimate clause of claim 15 that the teeth and gaps of the inner and outer gear

rings are arranged such that the hub is capable of being assembled to the outer gear ring in only one position of the inner gear ring relative to the outer gear ring.

The foregoing distinctive features solves a problem of increased wear of parts which occurs when the hub or inner gear ring is not reassembled in its original position relative to the outer gear ring and when the spherical cups are not reassembled in their original positions relative to the outer gear ring.

The Takeda patent discloses a corrugated cardboard box-making machine having feed unit 1, a printing unit 2 and a slotting unit 3. The feed unit has a kicker shaft 18 for delivering seriatim cardboard sheets or blanks to the printing unit 2. The printing unit has a printing cylinder 23 for applying printed matter to the sheet. The printed sheet is then delivered to the slotting unit where shaft driven knives cut slots at predetermined locations in the printed sheet. The motor driven gear transmission for operating units 1-3 includes couplings 27, 28 for disconnecting sections of the gear transmission. The disconnection of the transmission sections enables units

1-3 to be separated to permit removal of the slotting knives and the cylindrical printing plates.

Each of the couplings 27, 28 has separable gears 29, 30 which are uniquely keyed or configured to ensure that the transmission gears are reassembled in the same relative positions occupied before disassembly. This feature solves the problem of reassembling the transmission gears in different positions where the cardboard sheets are not printed or slotted at the proper locations.

From the foregoing discussion, it is apparent that both the Takeda patent and appellants' invention relate to problems arising from the relative positions of gear transmission components after reassembly. To this extent, the Takeda patent is reasonably pertinent to the particular problem with which appellants were involved to apparently meet the second part of the two-part test for analogous art as set forth in In re Clay, 966 F.2d 656, 658, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992). On the other hand, appellants and Takeda are concerned with different specific problems, namely the problem of wear in appellants: invention, and the

problem pertaining to the printing and slotting locations in the Takeda patent.

In any event, even if it is assumed for the sake of argument that the Takeda patent constitutes analogous art and even if it assumed for the sake of argument that Takeda suggests the feature defined in the penultimate clause of claim 15, we nevertheless cannot sustain the rejection of claim 15. In the present case, the examiner has failed to advance any evidentiary basis to support a conclusion that the difference pertaining to the relative positions of the spherical cup and the outer ring, as defined in the third from the last clause of claim 15, is such that appellants' claimed invention would have been obvious to one of ordinary skill in the art. As a result, the examiner's 103 rejection of claims 15-18, 20-22, 24 and 26 fails for lack of a sufficient factual basis. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

The examiner=s decision rejecting claims 15-18, 20-22, 24 and 26 is reversed.

REVERSED

HARRISON E. McCANDLISH Senior Administrative Patent Judge	)	
NEAL E. ABRAMS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

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