UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KIYOO MORITA

Appeal No. 2006 - 1622
Application No. 10/020,956

HEARD: JULY 11, 2006

Before FRANKFORT, BAHR, and FETTING, **Administrative Patent Judges**.

FETTING, **Administrative Patent Judge.**

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. §134 from the examiner's final rejection of claims 1 through 3, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a tape reel. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

> 1. A tape reel comprising:
>
> a hub having a cylindrical shape; and
>
> an upper flange and a lower flange respectively provided at an upper end and a lower end of said hub,
>
> wherein a magnetic tape is wrapped around an outer peripheral surface of said hub, and
>
> means for gradually decreasing a distance between said upper flange and said lower flange outside the outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub, by deflecting said upper and lower flanges towards each other over an entire circumference thereof.

PRIOR ART

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Iwahashi	4,807,826	Feb. 28, 1989

REJECTIONS

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Iwahashi.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejection, we make reference to the examiner's answer (mailed March 31, 2005) and supplemental answer (mailed January 10, 2006) for the reasoning in support of the rejection, and to appellant's brief and affidavit (filed January 10, 2005) and first reply brief (filed May 25, 2005) and second reply brief (filed January 31, 2006) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations that follow.

Claims 1-3 rejected under 35 U.S.C. § 102(b) as being anticipated by Iwahashi.

We note that the appellant argues these claims as a group. Accordingly, we select claim 1 as representative of the group.

The examiner argues that the means element of claim 1 is met in Iwahashi by the force of the tape on the hub. Specifically, the examiner states that Iwahashi shows that the

> means for gradually decreasing a distance between said upper flange (17) and said lower flange outside an outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub (when the magnetic tape wrapping force in a radial direction is so great that both the

hub (11) and the inner rib (12) are deformed which would inherently deflect both flanges), by deflecting said upper and lower flanges toward each other over an entire circumference thereof [See Final Rej. at p. 2]

The appellant responded

In the present case, the Examiner appears to set forth a hypothetical situation where the magnetic tape wrapping force in a radial direction is "greater than the hub and the inner rib structures" so that the magnetic tape wrapping force would inherently deform both the hub and the inner hub. However, as noted above, Iwahashi expressly discloses that the ribs 21 prevent the outer cylindrical section from radially and inwardly bending by the pressure exerted from the tape wound therearound, so that this hypothetical situation described by the Examiner would never happen in Iwahashi. [See Brief at p. 13]

The examiner then responded

The invention of Iwahashi '826 is designed to prevent the inward radial deformation, but the prior art teaches Appellant's claimed invention by its recognition of the deformation and an attempt to prevent it. The reference as a whole teaches the concept of means for gradually decreasing a distance between the flanges and the hub as the magnetic tape is wrapped around the hub. Iwahashi '826 recognizes the problem with an inward radial bending to the hub caused by the tape tightly wrapped around the hub. As the hub deforms radially, both of the flanges deflect inwardly to the hub. Iwahashi '826 attempts to solve the problem by shortening the length of the rib which prevents the outer cylindrical section from an inward radial deformation when the tape is tightly wound around the outer cylindrical section, see column 2, lines 1-17. [See Answer at p. 5]

The appellant finally responded regarding this bending in the prior art

Thus, the radially inward bending or deformation is at an upper portion of the outer cylindrical section of the tape reel. Quite clearly, nothing is ever mentioned about the upper and lower flanges of the tape reel deflecting towards each other over an entire circumference thereof let alone "means for gradually decreasing a distance between said upper flange and said lower flange outside the outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub, by deflecting said upper and lower flanges towards each other over an entire circumference thereof" as recited in Appellant's independent claim 1.

> Thus, the Examiner's assertion that as the hub deforms radially (in Iwahashi '826), both of the flanges deflect inwardly to the hub is sheer speculation and finds no support in the portion cited by the Examiner (i.e., column 2, lines 1-17), nor any other part of the reference. [See Reply Brief at p. 7]

As to the examiner's original premise that given sufficient force, the tape would inherently deform the hub sufficiently to cause the deflection of the flanges as claimed, the examiner has shown no evidence that such force would be present in operation of the tape reel, let alone that such force would be present before the tape would break, in the hub as used in Iwahashi or its described prior art. This structural feature, of designing the flexing of the hub so that such deformation may occur during operation, is precisely the structural characteristic described as being provided by the claimed means. In this regard, the appellant's specification explains:

> In order to keep the distances H3 and H4 always within the certain range, rigidity of the hub 11, manner of fixing the upper and the lower flanges 12, 13 to the hub 11, material of the tape reel 10 and so on are established. Preferably, the rigidity is determined by setting the thickness T of the outer peripheral wall 11a, by setting shape and thickness of the center part 11b and the support walls 11c and so on.
>
> Wrapping torque for wrapping the magnetic tape 20 around the tape reel 10 is also established so that the distances H3 and H4 may be always within the certain range. [See Specification at p. 10]

As to the examiner's argument in the answer that the prior art in Iwahashi described such deflection of both flanges, we note that the appellant is correct in interpreting this prior art as creating less strength near one of the flanges than the other, and would only cause one flange to deflect, if it deflected at all. We further note that Iwahashi does not explicitly recite such deflection, but this deflection was inferred by the examiner based on its explicit description of hub deformation near one, but not both, of the flanges.

Therefore, since the examiner has presented no evidence that either the invention or the prior art described in Iwahashi deflects their upper and lower flanges towards each other over an entire circumference thereof, we find the examiner's arguments to be unpersuasive.

Accordingly, we **do not sustain** the examiner's rejection of claims 1-3 as rejected under 35 U.S.C. § 102(b) as being anticipated by Iwahashi.

CONCLUSION

To summarize, the rejection of claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Iwahashi, is **not sustained**.

REVERSED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
JENNIFER D. BAHR Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ANTON W. FETTING Administrative Patent Judge	)	

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