The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPH PHILIP FALACE, WAYNE RICHARD HEMZACEK,
DAVID THOMAS HOGE, CLARK MILO JANSSEN,
DONOVAN MILO JANSSEN and JOHN SAM TODOR

Appeal No. 2002-1185
Application No. 09/112,242

ON BRIEF

Before RUGGIERO, DIXON and SAADAT, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1, 2, 4-18 and 24-26. Claims 3 and 19-23 have been canceled.

We affirm-in-part.

BACKGROUND

Appellants' invention relates to a magnetic tape drive including a tape threading mechanism and a tape wrap mechanism which can be implemented in a compact space. The threading mechanism threads the tape from a cartridge into a takeup reel

while the wrap mechanism transports the threaded tape into a position against the read/write head (specification, pages 3 & 4).

Representative independent claims 1, 7 and 24 are reproduced below:

1. A tape drive apparatus for reading and writing data on to a magnetic tape that is supplied in a removable tape cartridge, containing a single reel rotatably mounted within said magnetic tape cartridge, and having a leader block affixed to one end of said magnetic tape for use in withdrawing said one end from said magnetic tape cartridge, comprising:

means for receiving a magnetic tape cartridge;

takeup reel means, located adjacent said means for receiving and permanently mounted in said tape transport apparatus, having an aperture formed therein located substantially opposite said leader block when said magnetic tape cartridge is loaded in said means for receiving, for receiving said leader block;

read/write head means, located adjacent said takeup reel means, for reading and writing data on to said magnetic tape;

tape threading means for grasping said leader block to thread said magnetic tape along a substantially linear path from said magnetic tape cartridge directly to said takeup reel means by threading said leader block in said aperture; and

tape wrap means for translating said threaded magnetic tape from said predetermined path at least 180° around a circumference of said takeup reel means to wrap about said read/write head means.

7. A tape transport apparatus, having width and depth dimensions, for reading and writing data on to a magnetic tape that is supplied in a removable tape cartridge, containing a single reel rotatably mounted within said magnetic tape cartridge, and having a leader block affixed to one end of said

magnetic tape for use in withdrawing said one end from said magnetic tape cartridge, comprising:

takeup reel means permanently mounted in said tape transport apparatus, located proximate a first extreme edge of said width dimension and proximate a first extreme edge of said depth dimension, having an aperture formed therein located substantially opposite said leader block when said magnetic tape cartridge is loaded in said tape drive, for receiving said leader block;

read/write head means, located proximate a second extreme edge of said width dimension and proximate a first extreme edge of said depth dimension, said second extreme edge of said width dimension being located opposite said first extreme edge of said width dimension, for reading and writing data on to said magnetic tape;

tape threading means for grasping said leader block to thread said magnetic tape along a substantially linear path from said magnetic tape cartridge directly to said takeup reel means by threading said leader block in said aperture; and

tape wrap means for translating said threaded magnetic tape from said predetermined path along a tape wrap path to traverse a space between said takeup reel means and said read/write head means and thence to wrap about said read/write head means.

24. A tape drive in combination with a tape cartridge having tape, comprising:

a first tape path linearly extending along a backside of the tape drive;

a second tape path, substantially parallel to the first tape, linearly extending along a backside of the tape cartridge; and

a third tape path, between the first and second tape paths, where the tape is adjacent to a tape head.

The Examiner relies on the following reference in rejection the claims:

Leonhardt et al. (Leonhardt) 5,128,815 Jul. 7, 1992

Claims 1, 2, 7, 10, 14, 15, 24 and 25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Leonhardt.[1]

Claims 4-6, 8, 9, 11-13 and 16-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Leonhardt.[2]

We refer to the final rejection (Paper No. 8, mailed August, 4, 2000) and the answer (Paper No. 13, mailed May 22, 2001) for the Examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 12, filed February 13, 2001) for Appellants' arguments thereagainst.

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[1] The canceled claim 3 is inadvertently listed instead of claim 2 in the statement of the rejection while claim 26 is omitted from the rejection.

[2] In the answer, the Examiner adds a rejection for claim 4 under the second paragraph of 35 U.S.C. § 112 for lack of antecedent basis for the term "said first movable guide means." This constitutes a new ground of rejection which is not permitted under 37 CFR § 1.192(2) (revised July 1, 2000). Although the above-noted term, indeed lacks antecedent basis in the base claim, it appears that claim 26, which is dependent upon claim 1 and has been overlooked by the Examiner, probably provides the antecedent basis for claim 4. However, we note that Appellants should submit the necessary amendments to correct the antecedent problem in claim 4 by either adding the missing element to claim 4 or change its dependency from claim 1 to claim 26.

OPINION

At the outset, we note that Appellants indicate that claims 1 and 2 constitute one group, claims 7-9 and 14 stand or fall together, claims 10, 15 and 26 stand or fall together, claims 24 and 25 stand or fall with one another, claims 4, 11 and 16 stand or fall together and claims 5, 6, 12, 13, 17 and 18 stand or fall together (brief, page 3). Appellants point to the recited features that separate these groups (brief, page 4) and further provide separate arguments for each group, in the arguments section of the brief for each group, as required by 37 CFR § 1.192(c)(7) (July 1, 2000). Therefore, we will consider Appellants' claims as standing or falling together as argued in the brief to the extent they correspond to each ground of rejection.

35 U.S.C. § 102(b) rejection of claims 1, 2, 7, 10, 14, 15, 24 and 25 over Leonhardt

With respect to claim 1, the focus of Appellants' arguments is that Leonhardt does not disclose a tape wrap means for translating said threaded magnetic tape from the predetermined path at least 180° around a circumference of the takeup reel (brief, page 6). Appellants point out that the claimed "takeup reel means" and the "tape wrap means" are different elements

which cannot be characterized as the same thing by the Examiner (brief, pages 6 & 7). Appellants further argue that moveable guides 415 and 419 in Figure 4 of Leonhardt are used to wrap the tape about head 416, but do not provide any tape translation around the circumference of the takeup reel (brief, page 7).

In response to Appellants' arguments, the Examiner relies on Figures 5 and 6 of Leonhardt and argues that the takeup reel has the tape around its circumference via tape portions 425 and 426 and wraps about the read/write head (answer, page 5). The Examiner further asserts that the moveable guides provide for these tape portions to be guided and translated about the takeup reel (id.).

A rejection for anticipation under section 102 requires that the four corners of a single prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation. See Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999); In re Paulsen, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described

by the reference. As set forth by the court in Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), it is only necessary for the claims to "'read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it." Furthermore, anticipation requires a finding that the claim at issue "reads on" a prior art reference. See also Atlas Powder Co. v. IRECO Inc., 190 F.3d at 1346, 51 USPQ2d at 1945 (Fed. Cir. 1999) (quoting Titanium Metals Corp. v. Banner, 778 F.2d 775, 781, 227 USPQ 773, 778 (Fed. Cir. 1985)).

After reviewing Leonhardt, we find that the Examiner presents sufficient evidentiary support to establish a prima facie case of anticipation. We agree with the Examiner that moveable guides 415 and 419 along with guides 408 and 411, as depicted in Figures 4 and 5, translate the magnetic tape from a straight path at least 180° around a circumference of takeup reel 402. We also find that the Examiner has correctly characterized the moveable guides of Leonhardt as the claimed "tape wrap means for translating said threaded magnetic tape" which translate the magnetic tape from its predetermined path around the takeup reel.

Additionally, we remain unpersuaded by Appellants' argument that "guides 415 and 419 merely wrap the tape about the head, and provide no tape translation around the circumference of the takeup reel" (brief, page 7). In fact, Leonhardt does show magnetic tape 425 being conveyed or translated from its predetermined path, which is shown as tape path 423 in Figure 4 and as tape path 426 in Figure 5, to a path which wraps about read/write head 416 (col. 5, lines 45-62). We note that similar to the recited features of claim 1, the new path extends along three sides of the takeup reel (left, top and right sides) and forms a 180° spread around a circumference of the takeup reel while the tape contacts the read/write head.

In view of the analysis above, we find that the examiner has met the burden of providing a prima facie case of anticipation by showing that Leonhardt teaches a tape wrap means for translating said threaded magnetic tape from the predetermined path at least 180° around a circumference of the takeup reel, as recited in Appellants' independent claim 1. Accordingly, we affirm the 35 U.S.C. § 102 rejection of claim 1, as well as claim 2 which is grouped with claim 1 as standing or falling therewith, over Leonhardt.

Turning now to the rejection of claim 7, as well as claim 14 which is grouped with claim 7, Appellants assert that the specific positional relationship of the takeup reel and the read/write head with respect to the edges of the tape transport apparatus are not shown (brief, pages 7 & 8). We note that although the Examiner refers to a “backside of the tape drive” and paths linearly extending along and parallel to the backside, the Examiner points to no teachings in Leonhardt, nor do we find any disclosure, that would read on the recited proximity to the edges of the width and depth dimensions. Accordingly, because the Examiner has failed to establish a prima facie case of anticipation, the 35 U.S.C. § 102 rejection of independent claims 7 and 14 and claims 10 and 15, which depend therefrom, cannot be sustained.

With respect to claim 24, Appellants argue that Figure 5 of Leonhardt shows the tape path “in unloaded position ..., as shown by elements 423 and 426" which are not substantially parallel to a first tape path linearly extending along a backside of the cartridge (brief, page 9). The Examiner responds (answer, page 6) by pointing out that the tape does extend along the backside, which is “the side opposite where the cartridge is open for tape removal.”

We find that claim 24, without reciting any specific description of the “backside” in relationship to the other sides, reads on the tape paths disclosed in Figure 5 of Leonhardt. What Appellants argue as paths that are not substantially parallel, as elements 423 and 426, are in fact the paths that the tape travels along while being loaded and are identified in Leonhardt as tape threading path 423. This path indeed leads to three path segments as the magnetic tape travels around fixed guided 408 and 411 before being positioned around read/write head 416 (col. 6, lines 16-21). The first segment of the path extends along a backside of tape drive (425, on the right-hand side), a second segment which is parallel to the first one is along a backside of tape cartridge 400 (425, on the left-hand side) and a third segment is located between the other two segments adjacent to tape head 416 (425, on the top side). Therefore, as the Examiner has established a reasonable case of prima facie anticipation, we sustain the 35 U.S.C. § 102 rejection of independent claim 24 and claim 25, which is grouped therewith, over Leonhardt.

Turning now to claim 26, Appellants argue that the moveable guides of Leonhardt do not move between the first and second positions that are juxtaposed to the takeup reel (brief, page 8).

In response, the Examiner interprets juxtaposed as “side by side” and concludes that moveable guides 415 and 419 are side by side the takeup reel (answer, page 6). We note that the moveable guides, elements 415 and 419 depicted in Figures 4 or 5, are actually shown as positioned askew, and not juxtaposed or side by side, with respect to takeup reel 402. Therefore, the applied prior art reference does not anticipate claim 26 and we cannot sustain its 35 U.S.C. § 102 rejection over Leonhardt.

35 U.S.C. § 103(a) rejection of claims 4-6, 8, 9, 11-13 and 16-18 over Leonhardt

The Examiner acknowledges that Leonhardt does not show a third moveable guide means, a rack and pinion means or the specific recited width and depth dimensions (final rejection, page 5). However, the Examiner merely takes Official Notice and relies on the knowledge of one of ordinary skill in the art to modify the tape drive of Leonhardt and adds the missing elements (id.).

As a general proposition, in rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under § 103, the examiner must produce

a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. The Examiner must not only identify the elements in the prior art, but also show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). 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. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000), citing B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996). Such evidence is required in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984).

A review of the applied prior art confirms that, as acknowledged by the Examiner, the claimed third moveable guide, the use of rack and pinion gear means and the specific width and depth dimensions are absent in Leonhardt. However, as argued by Appellants (reply brief, pages 9-11), Leonhardt provides no disclosure or suggestion for employing the specific recited

moveable guides and the dimensions of the tape transport apparatus. Additionally, the Examiner has failed to point to any teachings in Leonhardt, nor do we find any, that would have motivated one of ordinary skill in the art to use a rack and pinion tape threading pin means, a third moveable guide means, or any particular dimension in the tape drive apparatus of Leonhardt and support the Examiner's conclusion of obviousness.

"Deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.'" In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697(Fed. Cir. 2001). Furthermore, "the Board's findings must extend to all material facts and must be documented on the record, lest the 'haze of so-called expertise' acquire insulation from accountability." In re Lee, 277 F.3d 1338, 1345, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002). Here, we find the Examiner's arguments to be supported merely by the Examiner's own expertise instead of the evidence of record and the teachings of prior art which are required in order to establish a prima facie case of obviousness. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of any of claims 4-6, 8, 9, 11-13 and 16-18 over Leonhardt.

CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1, 2, 24 and 25 under 35 U.S.C. § 102 is affirmed, but is reversed with respect to the 35 U.S.C. § 102 rejection of claims 7, 10, 14, 15 and 26 and the 35 U.S.C. § 103 rejection of claims 4-6, 8, 9, 11-13 and 16-18.

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

AFFIRMED-IN-PART

JOSEPH F. RUGGIERO Administrative Patent Judge	)	
JOSEPH L. DIXON Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
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