

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte STEVE HENKE

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Appeal No. 95-0884  
Application 07/805,098<sup>1</sup>

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ON BRIEF

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Before THOMAS, JERRY SMITH and CARMICHAEL, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-14. An amendment

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<sup>1</sup> Application for patent filed December 10, 1991.

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was filed concurrently with the appeal brief and was entered by the examiner. This amendment cancelled claims 11-14. Accordingly, this appeal is directed to claims 1-10, which constitute all the claims remaining in the application.

The claimed invention pertains to an apparatus for positioning the head of a tape drive relative to a tape. More particularly, the head is carried on a carriage which has thread means thereon. A lead screw engages the threads on the carriage to move the head when the lead screw is rotated. The threads of the lead screw are held in firm camming frictional engagement with the carriage thread means by a spring means.

Representative claim 1 is reproduced as follows:

1. A head positioning apparatus for a tape drive for positioning the head of the tape drive relative to the tape and including a carriage carrying the head and drive means, including a lead screw, operative in response to rotation of the lead screw to move the carriage and thereby position the head, characterized in that the drive means includes thread means fixedly defined on the carriage and spring means acting on the lead screw and urging the lead screw laterally relative to the rotational axis of the lead screw into firm camming frictional driving engagement with the carriage thread means.

The examiner relies on the following references:

Camras	3,531,600	Sept 29, 1970
Torii et al. (Torii)	4,376,961	Mar. 15, 1983
Steltzer	5,105,322	Apr. 14, 1992
		(filed June 29, 1990)

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Claims 1-10 stand rejected under 35 U.S.C. § 103. In the final rejection, the evidence of obviousness was Torii in view of Camras. In a new additional rejection made in the examiner's answer, the evidence of obviousness was Torii in view of Camras and Steltzer.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answers for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that the collective evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-10. Accordingly, we reverse.

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Appellant has nominally indicated that for purposes of this appeal the claims will all stand or fall together as a single group [brief, page 3]. Consistent with this indication appellant has made no separate arguments with respect to any of the claims on appeal. Accordingly, all the claims before us will stand or fall together. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Accordingly, we will only consider the rejection against claim 1 as representative of all the claims on appeal.

We consider first the rejection of claim 1 under 35 U.S.C. § 103 as unpatentable over the teachings of Torii and Camras. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some

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teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner cites Torii as teaching a conventional drive system in which a lead screw causes relative movement of a carriage. Torii does not teach the use of a spring means to urge the lead screw into firm camming frictional engagement with the carriage. The examiner recognizes this deficiency of Torii and cites Camras as a teaching of using a spring means to perform this claimed operation. The examiner offers a reason as to why it would have been obvious to apply the Camras teachings to the Torii device [answer, pages 3-5]. Appellant argues that Camras contains no teaching of how the spring means 75 interacts with

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the lead screw 79 or the threaded nut 72 [brief, pages 5-6]. Appellant also argues that there is no reason to use the Camras spring with the Torii positioning system [reply brief, pages 3-5].

With respect to the first point made by appellant, we agree that Camras contains no teaching whatsoever of how the spring 75 coacts with the threaded nut 72 and the lead screw 79. The examiner argues that despite this complete absence of a teaching in Camras, it would have been obvious to the artisan that the Camras spring was intended to perform in the claimed manner because it was an old and well-known method for preventing backlash and ensuring a positively seated lead screw [answer, page 8]. This alleged finding of fact by the examiner is not supported by any evidence in this record. Appellant disputes that the spring in Camras operates to urge the lead screw against the carriage, and the examiner simply relies on the skill of the artisan to conclude that what Appellant has done would have been obvious. The examiner is obligated to support his position with clear evidence on the record. Such evidence is lacking here so that the examiner's position amounts to nothing more than an unsupported opinion. Therefore, we do not sustain the rejection of the claims based on Torii and Camras.

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We now consider the rejection of claim 1 as being unpatentable over the teachings of Torii, Camras and Steltzer. Torii and Camras are applied in the same manner discussed above. Steltzer teaches a tape drive positioning system in which a lead screw acts against a carriage having a thread means. Steltzer teaches the use of a spring 66 for urging a threaded nut 32 attached to the carriage against the lead screw 28 to prevent vertical backlash and hysteresis between the lead screw and the threaded nut. The examiner argues that it would have been obvious to apply the Steltzer teachings to the Torii lead screw arrangement to arrive at the claimed invention [answer, pages 6-7]. Appellant responds that the Torii device does not need the Steltzer backlash and hysteresis preventing operations so that there would be no motive to combine the teachings of Torii with Steltzer [second reply brief, page 4]. Appellant also argues that Steltzer teaches using the spring to urge the threaded nut against the lead screw rather than urging the lead screw itself as claimed [second reply brief, pages 4-6].

With respect to the first point raised by appellant, the motive to combine the teachings of Torii with Steltzer may be missing as argued by appellant, however, it would appear to us that the teachings of Torii are unnecessary to support the

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position taken by the examiner. Since Torii was cited simply to teach a tape drive movement system using a lead screw and since Steltzer also teaches this type of drive system, it appears that Torii could have been eliminated from the combination to support the position of the examiner. That is, Steltzer alone would appear to provide the same teachings to the artisan with respect to claim 1 as the combination of Torii and Steltzer would provide.

With respect to the second point raised by appellant, we agree with appellant that there is a literal difference between urging the lead screw against the carriage thread means and urging the carriage thread means against the lead screw. Appellant argues that the claims require that the spring contact the lead screw and provide force directly thereto. In our view, this is a correct interpretation of independent claims 1 and 8. Claim 1 recites that the springs means acts on the lead screw and urges the lead screw laterally relative to its rotational axis. We agree with appellant that this claim recitation requires that the spring act directly on the lead screw to move it. Claim 8 recites that the spring clip embraces the lead screw and urges it into engagement with the carriage thread means. Again, we agree

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with appellant that this claim recitation requires that the spring act directly on the lead screw to move it.

Steltzer is considered to be a particularly relevant piece of prior art because it at least suggests the desirability of urging a threaded means attached to the carriage against the threads of the lead screw to reduce vertical motion backlash and hysteresis. Steltzer, however, clearly applies the urging force to the threaded nut as opposed to the lead screw. Although the same result is desired by Steltzer as in the claimed invention, the manner of getting there is different. The appropriate question to have asked based upon the teachings of Steltzer is whether the Steltzer technique for reducing vertical motion backlash and hysteresis would have rendered the technique of the instant claims obvious within the meaning of 35 U.S.C. § 103. The examiner has never considered this question, and appellant has presented arguments as to why the claimed feature of using the spring to directly contact and urge the lead screw against the carriage thread means represents a patentable advance over the applied prior art. Therefore, on the record before us, there are no facts presented upon which the examiner's rejection of the claims based on Torii, Camras and Steltzer can be supported. Thus, we also do not sustain this rejection of claims 1-10.

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In summary, we have not sustained either of the examiner's rejections of claims 1-10. Therefore, the decision of the examiner rejecting claims 1-10 is reversed.

REVERSED

JAMES D. THOMAS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
JERRY SMITH	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JAMES T. CARMICHAEL	)	
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