

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 ROGER R. BELANGER

Appeal 2007-1422
Reexamination Control 90/007, 260
Patent 6,093,139
Technology Center 3700

Decided: July 5, 2007

Before TEDDY S. GRON, JAMESON LEE, and
ROMULO H. DELMENDO, *Administrative Patent Judges*.

GRON, *Administrative Patent Judge*.

DECISION ON APPEAL

INTRODUCTION

This is a decision on appeal under 35 U.S.C. § 134 from an
Examiner's final rejection of Claims 1-21 in Reexamination 90/007,260 of

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U.S. Patent 6,093,139, issued July 25, 2000¹. All claims stand finally rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Sheldon, U.S. Patent 953,063, issued March 29, 1910, and Stab, U.S. Patent 5,484,379, issued January 16, 1996.

Appellant argues the claims in five separate groups: (I) Claims 1, 8-9, and 11-17, (II) Claims 2 and 18-21, (III) Claims 3-7, (IV) Claim 5, and (V) Claim 10. According to 37 C.F.R. § 41.37(c)(1)(vii) (2006):

When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.

In this case, we choose Claim 1 as representative of Group I, Claim 2 as representative of Group II, and Claim 3 as representative of Group III.

Thus, all claims stand or fall with Claims 1, 2, 3, 5, and 10 of their respective groups.

¹ Application 09/013,930, filed January 27, 1998.

DISCUSSION

Scope of the Claims

A rejection under 35 U.S.C. § 103 should not be based upon speculation and assumptions as to the scope of the claims. *In re Steele*, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). Accordingly, we determine first the scope and content of the claimed subject matter. In a reexamination proceeding, claims should be given the broadest reasonable interpretation consistent with the specification. *In re Yamamoto*, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1985). “The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.” *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). “An essential purpose during patent examination is to fashion claims that are precise, clear, correct, and unambiguous.” *Id.* “Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.” *Id.*

Claim 1 reads (Appendix A to the Brief; emphasis added):

1. Product cutting device for flat material comprising:
a pinless product folding cylinder rotating about an axis of rotation and having a surface supporting an incoming material;

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a cutting cylinder cooperating with said product folding cylinder and having knife assemblies mounted thereon; and
at least one cyclically engageable product seizing element assigned to at least one of said product folding cylinder and said cutting cylinder, and being moveable opposite to a sense of rotation of said product folding cylinder for engaging a next product's front portion after a cutting operation.

In order to determine the scope of the claimed subject matter, it is first necessary to interpret the meaning of several phrases, specifically “product folding cylinder,” “cooperating with said product folding cylinder,” “knife assemblies,” “moveable opposite to a sense of rotation,” and “next product’s front portion.” The meanings of these phrases must be understood in order to compare the subject matter of Claim 1 to the prior art disclosures of Sheldon and Stab.

First, we consider the phrases “product folding cylinder” and “cooperating with said product folding cylinder.” Applicant’s specification describes a product folding cylinder as a cylinder that performs a folding function in cooperation with a tucking blade and two fold rollers (Belanger, col. 3, ll. 24-31). Interpreted in light of the specification then, Applicant’s product folding cylinder is part of a folding assembly which comprises a cylinder. Thus, any cylinder which cooperates with another part of a product folding assembly is a “product folding cylinder.”

Second, the term “knife assemblies” needs interpretation. Appellant argues that the term requires a plurality of knives (Br. p.7). In contrast, the Examiner concludes that, given the broader reasonable interpretation, “[t]he claimed limitation merely requires knife assemblies,” or multiple components which comprise one or more knives (Answer 4-5).

Applicant’s specification supports the Examiner’s broad interpretation. Applicant’s specification states that “on the cutting cylinder 5 rotating about axis 11, knife assemblies 6 are arranged, each including cheekwoods 7 and a sponge pad 8” (Belanger, col. 3, ll. 14-16). Appellant has not shown that the Examiner erred concluding that, given the broadest reasonable interpretation consistent with Applicant’s specification, the term “knife assemblies” means one or more knives, each with multiple parts.

Third, we define the phrase “opposite to a sense of rotation.” Applicant’s specification is silent as to any specific definition of this phrase, so it must be given the broadest reasonable interpretation. Thus, any clockwise motion is opposite to the sense of rotation of a counterclockwise element. Likewise, any counterclockwise motion is opposite to the sense of rotation of a clockwise element.

Finally, we consider the phrase “next product’s front portion.” Applicant’s specification does not define a “next product’s front portion,” so this phrase must be given the broadest reasonable interpretation consistent with the Specification. Appellant argues that “the edge gripped by [the prior art] is not ‘a next product’s front portion after a cutting operation’ – it is a prior product’s front portion” (Br. p. 9). However, there is no language in Applicant’s claims or specification that requires this distinction. Thus, under a broad interpretation, this phrase encompasses *any* front portion of *any* next product.

Prior Art

With the terms defined, we can compare the claimed subject matter to the prior art. Claim 1 first requires “a pinless product folding cylinder rotating about an axis of rotation and having a surface supporting an incoming material” (Appendix A to the Br.). Sheldon does not disclose a product folding cylinder. Stab discloses a folder assembly, which includes a collection cylinder 1 cooperating with a folding cylinder 26 (Stab, col. 3, ll. 10-19). As stated earlier, Applicant’s product folding cylinder cooperates with a tucking blade and two fold rollers as a folding assembly (Belanger, col. 3, ll. 24-31). Therefore, it is reasonable to assume that either of the

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cylinders cooperating with each other in Stab's folding assembly, the collection cylinder 1 or the folding cylinder 26, is a "product folding cylinder" of Applicant's claims.

Claim 1 then requires "a cutting cylinder cooperating with said product folding cylinder and having knife assemblies mounted thereon" (Appendix A to the Br.). Under the broadest reasonable definition of "knife assemblies," Sheldon discloses a cutting cylinder 11 "provided with a moveable knife 14 fast on a knife carrying bar 15, this bar being arranged to slide in a socket 16 in the cylinder" (Sheldon, p. 2, ll. 68-71). Thus, Sheldon's cutting cylinder contains multiple components which are "knife assemblies." Additionally, Stab discloses a cutting blade cylinder 2, with two "diametrically opposed cutting knives or blades," that works in conjunction with the collection cylinder (Stab, col. 3, ll. 20-32).

Finally, Claim 1 requires "at least one cyclically engageable product seizing element assigned to at least one of said product folding cylinder and said cutting cylinder, and being moveable opposite to a sense of rotation of said product folding cylinder for engaging a next product's front portion after a cutting operation" (Appendix A to the Br.). Stab discloses grippers 5 (the seizing elements) located on the collection cylinder 1 (a product folding

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cylinder) that are moveable opposite to the collection cylinder's rotation under the broadest reasonable definition of "opposite to a sense of rotation" (Stab, col. 3, ll. 26-30). These grippers "[grip] a leading edge of [the] leading portion of [the] paper web," which encompasses the "next product's front portion" (Stab, col. 5, ll. 14-15).

Claim 2 reads (Appendix A to the Brief):

Product cutting device of claim 1, wherein said surface of the product folding cylinder supporting the incoming material is a surface supporting an incoming web of material, and wherein said product seizing element is arranged on said product folding cylinder.

Stab discloses a collection cylinder with seizing elements and a surface that supports the incoming web of material (Stab, col. 5, ll. 11-16).

We interpreted Applicant's claimed "product folding cylinder" to encompass either Stab's collection cylinder or folding cylinder.

Claim 3 reads (Appendix A to the Brief):

Product cutting device according to claim 1, wherein said product seizing element is arranged as a hold down device on said cutting cylinder.

The Examiner cites Sheldon's hold down member 42, located on cutting cylinder 11, as this seizing element (Answer 6-7). Appellant argues that "bar 42 is not 'moveable opposite to a sense of rotation of [the] product

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folding cylinder' as required by claim 3 ... through [its] dependency on claim 1" (Appeal Br. p. 12).

Under the broad definition of "opposite to a sense of rotation" as defined earlier, Sheldon's hold down member 42 satisfies Claim 3. Hold down member 42 is located on cutting cylinder 11, and it moves in a counterclockwise direction with the cutting cylinder. This movement is opposite the rotation of the collection cylinder (a product folding cylinder), which is shown to move in a clockwise direction.

Furthermore, Sheldon's grippers 12 read on the product seizing element of Claim 3. These grippers are located on the cutting cylinder 11 and are arranged as a hold down device. These grippers would operate opposite to the sense of the rotation of the folding cylinder portion of Stab's folder assembly when utilized in Sheldon's system. The "product folding cylinder" of Applicant's claims reads on either Stab's collection cylinder 1 or folding cylinder 26.

Claim 5 reads (Appendix A to the Brief):

Product cutting device according to claim 3, wherein said hold down device is actuated by a cam.

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Sheldon's specification states that "[v]arious mechanisms may be provided for opening the grippers 12 in order to release the sheet. In the particular construction illustrated, *the cam 68* is provided with an elevation 97 which elevation is met by the roll 70 just as the grippers are to be opened" (Sheldon, p. 5, ll. 46-52; emphasis added). Thus, Sheldon's grippers 12 satisfy Claim 5.

Claim 10 reads (Appendix A to the Brief):

Product cutting device according to claim 1, wherein said product seizing element is actuated by a spring arrangement.

Sheldon discloses that "bar 42 ... is supported *on springs 44* in its box" (Sheldon, p. 3, ll. 104-106; emphasis added). Furthermore, Sheldon discloses that, in regards to the grippers 12, "ordinary *spring rod constructions* are employed in connection with shafts 13 and 65 to cause the rolls 67 and 70 to follow the configuration of the cams" (Sheldon, p. 5, ll. 58-62; emphasis added). Thus, both Sheldon's hold down member 42 and grippers 12 satisfy the further limitation of Claim 10.

Obviousness

"Section 103 forbids issuance of a patent when the differences between the subject matter sought to be patented and the prior art are such

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that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which [the] subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). “If a person of ordinary skill in the art can implement a predictable variation, and would likely see the benefits of doing so, § 103 likely bars its patentability.” *Id* at 1731, 82 USPQ2d at 1396. Moreover, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond that person’s skill.” *Id*.

Sheldon discloses a printing press that contains all the elements of the invention Applicant claims, with the exception of the product folding cylinder. Stab discloses a “folder assembly *for a printing press*” (Stab, col. 1, ll. 5-6; emphasis added). Stab’s collection cylinder contains seizing elements that operate in the manner of the seizing elements on Applicant’s product folding cylinder. It would have been obvious to one of ordinary skill in the art, at the time Applicant’s invention was made, to combine Stab’s folding assembly with, and adapt it to, Sheldon’s printing apparatus.

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Appellant argues that elements of Stab's structures may not be physically incorporated into Sheldon's printing machine (Appeal Br.10-11). This argument does not rebut the obviousness of the combination. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference ... [r]ather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). "Common sense teaches ... that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. at 1742, 82 USPQ2d at 1397. "[W]hen a patent claims a structure already known in the prior art that is altered by mere substitution of one element for another known in the field, the combination must do more than yield a predictable result." *Id* at 1740, 82 USPQ2d at 1395.

CONCLUSION

Having considered all the evidence of record for and against the patentability of Claims 1-21 of U.S. Patent 6,093,139 under 35 U.S.C. § 103(a), we affirm the appealed final rejections.

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ORDER

Upon consideration of the appeal, and for the reasons given, it is

ORDERED that the decision of the Examiner rejecting Claims 1-21 of U.S. Patent 6,093,139 under 35 U.S.C. § 103(a) is affirmed; and

FURTHER ORDERED that the time for taking future action in this appeal cannot be extended under 37 CFR § 1.136(a)(2006).

AFFIRMED

LEE, *Administrative Patent Judge*, concurs in the result only.

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