

# United States Court of Appeals for the Federal Circuit

97-1408

IN RE HINIKER CO

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Appealed from: Patent and Trademark Office  
Board of Patent Appeals and Interferences

# United States Court of Appeals for the Federal Circuit

97-1408  
(Reexamination No. 90/003,881)

IN RE HINIKER CO.

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DECIDED: July 21, 1998

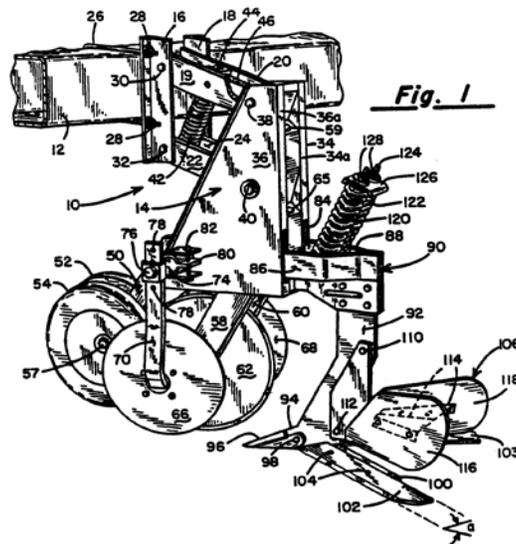
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Before LOURIE, CLEVINGER, and BRYSON, Circuit Judges.

CLEVINGER, Circuit Judge.

Hiniker's claims in this appeal from a reexamination proceeding are directed toward a row unit of a row crop cultivator, a farm implement. The Patent & Trademark Office (PTO) Board of Patent Appeals and Interferences (Board) affirmed an examiner's rejection of all the claims under 35 U.S.C. § 103(a). Because we hold that the Board's actions were consistent with the reexamination statute, and we agree that the invention as claimed would have been obvious to one of ordinary skill in the art, we affirm.

The reexamination proceeding involved U.S. Patent No. 4,834,189 (the Peterson '189 patent), assigned to Hiniker and directed toward a "Row Crop Cultivator." Row crop cultivators are designed to loosen and mix the soil between rows of growing plants such as corn and sugar beets so as to aerate the soil and kill weeds that grow between the rows. A row crop cultivator normally consists of individual row units mounted on a toolbar. The toolbar in turn is attached to the back of a tractor by a hitch. Each row unit is connected to the toolbar by two pivoting members that form a "parallel linkage" and allow the row unit to pivot up and down as the cultivator traverses uneven ground. Each row unit also generally employs one or two gauge wheels, a coulter blade, disks, and pointed sweeps or shovels. Figure 1 of the Peterson '189 patent shows such a row unit:



In this figure, the row unit is attached to toolbar 12 via parallel linkage members 19, 22 and is designed to travel through a field between two adjacent crop rows. Concave-shaped cut-away disks 66, 68 cut into the soil near the plant rows and toss the soil away from the plants as the disks roll along. A thin, flat coulter blade 62 cuts a

groove in the soil in front of a middleworker assembly (having a shank 92, lay shares 102, 103, and a subsoil point member 96), while a pair of adjustable gauge wheels 52, 54 ride on top of the ground and control the unit's depth. In the pictured embodiment, the coulter blade is mounted between the gauge wheels, and its leading edge is located in front of the trailing edge of each gauge wheel. As a result, the gauge wheels hold crop residue, such as old corn stalks or other plant matter, tight to the ground to help the coulter blade slice through the residue. By slicing the residue, the coulter blade helps prevent the residue from hanging up on the shank which leads down to the sweep, thus decreasing the chance that the cultivator will plug up. This feature is especially helpful in minimum tillage applications, i.e., when crop residue from previous growing seasons is not fully worked under the soil surface.

The claims of the Peterson '189 patent, which total 13 in number, were not amended during the reexamination proceeding. Claim 1 recites:

1. A row crop cultivator mounted on an agricultural tool bar to be pulled by a tractor vehicle for working the soil between adjacent crop rows with a plurality of implements and forming the thus worked soil into ridges along said crop rows, said cultivator comprising:
  - (a) a frame suspended from said tool bar;
  - (b) a pair of gauge wheels mounted in slightly spaced-apart relation on a common rotational axis, said pair of gauge wheels supporting said frame;
  - (c) a disk-shaped coulter blade rotatably suspended from said frame and with the leading edge surface of said disk[-]shaped coulter

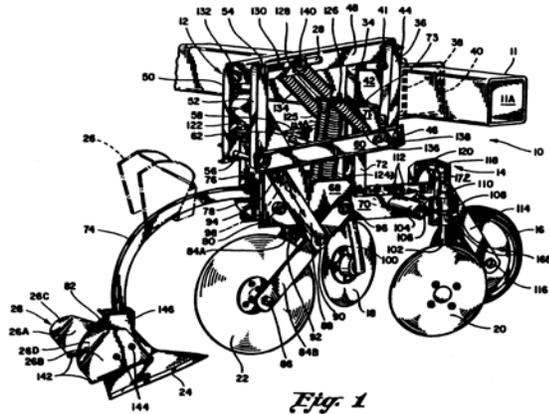
blade positioned between and forward of the trailing edges of said pair of gauge wheels; and

(d) a middleworker assembly suspended from said frame by a shank, said shank having flared wing members on each side of the lower end thereof, said middleworker assembly including a point member attached to the lower leading edge of said shank forward of said flared wing members, said point member being generally aligned with and aft of said disk-shaped coulter blade, and a pair of replaceable lay share members detachably secured to said flared wing members on said shank rearward of said point member, said point member providing a downward force on said sweep when being pulled through the soil as said lay share members break up said soil and residue and said middleworker traverses the ground.

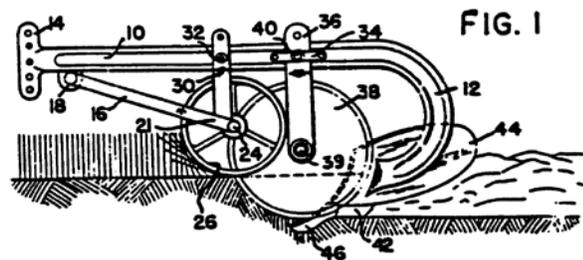
Although the claims were split into three groups before the Board, Hiniker addresses its arguments on appeal to all of the claims in general, and we accordingly treat the claims together and focus on claim 1.

Hiniker sued several of its competitors in U.S. district court for infringement of the Peterson '189 patent. In June 1995, during the pendency of the district court proceeding, the competitors requested reexamination of the Peterson '189 patent, relying in part on U.S. Patent No. 2,440,174 (Howard), which discloses a moldboard plow having a pair of gauge wheels on each side of a coulter blade and which had been cited but not applied in the original prosecution. The competitors asserted, among other things, that U.S. Patent No. 4,461,355 (Peterson '355), an earlier patent assigned

to Hiniker, discloses all of the claim limitations except the pair of gauge wheels with the closely-mounted coulter blade, and that Howard discloses that limitation. Figures from Peterson '355 and Howard are shown below:



Peterson '355



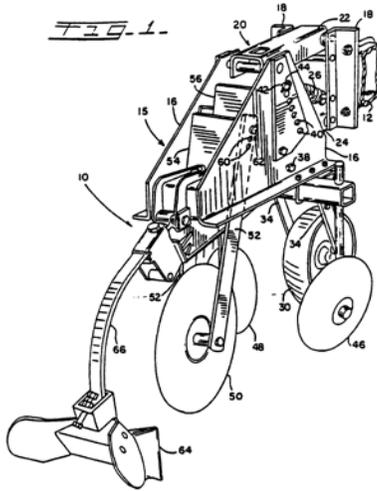
Howard

Although the examiner expressed doubt as to the strength of the competitors' arguments, he nevertheless determined that a substantial new question of patentability existed in view of Howard. The examiner, on the Commissioner's behalf, thus granted the request for reexamination.

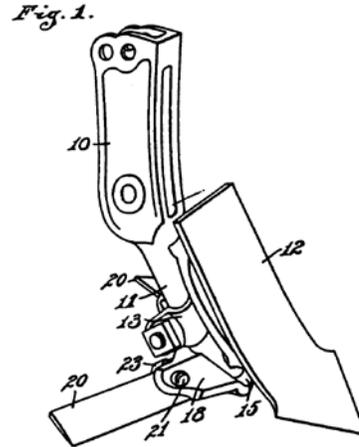
During the reexamination proceeding, the examiner repeatedly called for Hiniker to amend its claims to assure their patentability, and Hiniker repeatedly refused to do so. The first office action rejected the claims for obviousness based on Peterson '355, Howard, and two other patents in various combinations, all of which had been before the examiner during the examination of the application that matured into Hiniker's '189 patent. Subsequently, this court issued its decision in In re Recreative Technologies Corp., 83 F.3d 1394, 38 USPQ2d 1776 (Fed. Cir. 1996), which held that a prior art reference that served as a rejection in the prosecution of the original patent could not support a substantial new question of patentability that would permit the institution of a

reexamination proceeding. See id. at 1398-99, 38 USPQ2d at 1779-80. We extended that holding in In re Portola Packaging, Inc., 110 F.3d 786, 42 USPQ2d 1295 (Fed. Cir. 1997), which held that prior art that was before the original examiner could not support a reexamination proceeding despite the fact that it was not the basis of a rejection in the original prosecution; as long as the art was before the original examiner, it would be considered "old art." See id. at 791, 42 USPQ2d at 1300.

One week after Recreative was published, the examiner here issued a second office action, rejecting all of the claims based on various combinations of Howard, Peterson '355, U.S. Patent No. 4,819,737 (Frase), U.S. Patent No. 4,585,074 (Fleisher), and U.S. Patent No. 1,872,623 (East). (Frase and East are shown below.) Although Howard and Peterson '355 were cited in the original prosecution, Frase, Fleisher, and East were "new art," in that they were not before the examiner during the original prosecution. Hiniker proffered extensive argument and declarations suggesting that the references did not suggest to an artisan of ordinary skill that they should be modified or combined so as to produce an operable cultivator unit as claimed. Rejecting those submissions, the examiner ultimately made a final rejection of the claims based on the five pieces of prior art.



Frase



East

On appeal, the Board affirmed the rejection. In ruling on all of the claims except claim 5, the Board relied alternatively on Frase or Peterson '355 as primary references disclosing the bulk of the claimed limitations, on Howard as disclosing a coulter blade whose forward edge is located between a pair of gauge wheels, and on the sweep disclosed in East. In ruling on claim 5, the Board also relied on Fleisher as disclosing a narrow shank which would prevent residue from being thrown into the crop rows. In particular, the Board found that Hiniker's arguments and declarations "do not demonstrate that the modification of either primary reference by the teachings of East would encounter insurmountable difficulties or that there was any error in the examiner's determination that East is combinable with either of the primary references." Hiniker appeals from the Board's decision.

II

Hiniker contends that the PTO committed two fatal procedural violations during the reexamination proceeding. First, Hiniker argues that the entire proceeding was improper because it was instituted using art that was before the examiner during the

examination of the application that matured into the Peterson '189 patent (i.e., "old art").

Second, Hiniker argues that it was denied due process when the Board ruled on its appeal without providing a hearing.

#### A

Hiniker asserts that because the reexamination proceeding was instituted using old art (the Peterson '355 patent and the Howard '174 patent), the reexamination was wholly improper under Recreative and Portola. Hiniker notes that the Commissioner's authority to institute a reexamination proceeding is limited to situations in which there exists a "substantial new question of patentability." See 35 U.S.C. § 303 (1994). Because the Commissioner instituted the reexamination here based on Howard, a piece of old art, as defined in Recreative and Portola, Hiniker contends that we must reverse the Board.

We disagree. Our jurisdiction in this case is over Hiniker's appeal from the decision of the Board. See 28 U.S.C. § 1295(a)(4)(A) (1994); 35 U.S.C. § 141 ("An applicant dissatisfied with the decision in an appeal to the Board . . . under section 134 ... may appeal the decision to the . . . Federal Circuit."); see also 35 U.S.C. § 306 ("The patent owner involved in a reexamination proceeding . . . may appeal under the provisions of section 134 of this title . . . with respect to any decision adverse to the patentability of any original or proposed amended or new claim of the patent."); Portola, 110 F.3d at 787, 42 USPQ2d at 1296 ("Because the board exceeded its statutory authority by basing its decision solely on prior art previously considered by the PTO, we reverse."). The examiner and the Board here applied East in finding the claims under reexamination obvious. East was never before the examiner during the original

prosecution and is thus new art. There is no indication that East, which discloses a point member with sweep blades, was not material to the question of obviousness vel non or that it was cumulative with any old art. Thus, both the examiner's and the Board's decisions were based on a substantial new question of patentability.

We cannot impute the Commissioner's alleged error to the Board. Section 303, the provision that Hiniker argues was violated here, is directed toward the Commissioner's authority to institute a reexamination, and there is no provision granting us direct review of that decision. Any error in that decision was washed clean during the reexamination proceeding. We must review the decision of the Board on the Board's own rationale, and here that rationale squares with the statute. See Securities & Exchange Comm'n v. Chenery Corp., 318 U.S. 80, 87 (1943) ("The grounds upon which an administrative order must be judged are those upon which the record discloses that its action was based."); In re Hounsfeld, 699 F.2d 1320, 1324, 216 USPQ 1045, 1048 (Fed. Cir. 1983); cf. Portola, 110 F.3d at 787, 42 USPQ2d at 1296 (holding the reexamination improper where the rejection was based on old art even though the reexamination was originally instituted using new art).

Finally, our review of the Board's decision here will not subvert the policies that Recreative and Portola identified as inherent in the reexamination statute. In particular, those cases noted that, by allowing reexamination in limited circumstances, Congress wanted to reinforce confidence in patents by providing a body having expertise to settle validity disputes more quickly and cheaply than would litigation. See Portola, 110 F.3d at 789, 42 USPQ2d at 1298; Recreative, 83 F.3d at 1396-97, 38 USPQ2d at 1777-78.

At the same time, Congress "was also concerned about subjecting patentees to repeated examinations on the same prior art." Portola, 110 F.3d at 789, 42 USPQ2d at 1298; see Recreative, 83 F.3d at 1397, 38 USPQ2d at 1778. With direct review by this court of the Board's reexamination decisions, a patentee can be certain that it cannot be subjected to harassing duplicative examination. Both Recreative and Portola ensure that no claims may be ultimately denied over art that does not raise a substantial new question of patentability.

## B

Hiniker next claims that it was unconstitutionally denied an opportunity to appear for a hearing before the Board. Hiniker is correct that PTO regulations provide that an oral hearing "will" be provided where an appellant makes a proper request and pays the required fee. See 37 C.F.R. § 1.194(c) (1997). However, the same regulations require that a patentee serve the reexamination requester with a copy of any document filed during the reexamination. See 37 C.F.R. § 1.550(e). If a document is not properly served, "the document may be refused consideration by the Office." Id. Hiniker did not serve its competitors at the time it requested oral argument, and when it finally did file a certificate of service, the time for requesting oral argument had expired. Hiniker cannot lean on the regulations when it failed to satisfy a condition necessary to receive an oral argument, and Hiniker has not otherwise shown why its failure to receive an oral hearing in these circumstances has denied it due process of law, see 37 C.F.R. § 1.194(a) ("An appeal decided without an oral hearing will receive the same consideration by the [Board] as appeals decided after oral hearing.").

On the merits, the Board found that Peterson '355 and Frase each disclose all of the claim limitations except: (1) a spaced-apart pair of gauge wheels mounted on a common rotational axis; (2) a coulter blade located in front of the trailing edge of the gauge wheels; (3) flared wing members on each side of the lower end of the shank; and (4) a pair of lay share members detachably secured to the flared wing members. The Board found that Howard disclosed the first two of these limitations, and East disclosed the latter two. The key issue on appeal is whether an artisan of ordinary skill would have known to combine East with Frase or Peterson '355. The Board found: "East's teaching to add two flaring cutter (i.e., sweep) blades to the rear of the usual cultivator shovel provides both the motivation and suggestion to modify either primary reference in the manner stated by the examiner."

Hiniker's argument on appeal is essentially two-pronged. First, Hiniker asserts that East does not disclose all of the limitations of the "middleworker assembly" claim limitation. In light of the requirement that claims in a reexamination proceeding are to be given their broadest reasonable interpretation consistent with the specification, see In re Yamamoto, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984); see also In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997), we cannot agree with Hiniker. The "point member" recited in the claims can be matched to East's disclosure, and the claimed structure for attaching the point to the shank can be reasonably matched to the attachment between East's shovel and its shank.

Second, Hiniker contends that using the East shovel when mounted on the Frase or Peterson '355 cultivator units would encounter such severe difficulty as to dissuade an artisan of ordinary skill from making the combination. In particular, Hiniker submits

that, because the shovel in East has a very high angle of attack and a large frontal area, it would generate a "reaction force that [is] mainly backward, not downward," thus throwing soil upward and outward, and causing the shovel to rotate up out of the ground and "surf" above the soil. Appellant's Brief 18. In contrast, Hiniker points to the written description of its patent, which touts the middleworker's ability to provide downward force via the attack angle of the point member.

Although Hiniker's submissions are extensive and its arguments are otherwise persuasive, neither is connected to the broad claims that Hiniker seeks to secure. Hiniker speaks of operational advantages that are inherent in its claimed invention, but the closest the claims come to limiting themselves to a structure providing such advantages is their recitation that "said point member provid[es] a downward force on said sweep when being pulled through the soil." See '189 Patent, claim 1. The claims do not quantify this force and do not otherwise recite structure that would so limit their coverage. A simple free-body diagram of the East shovel indicates that it would provide some downward force even though that force would be overshadowed by the moment, or rotational force, created about the shank's mounting point by the backward force on the shovel's face. Hiniker concedes as much when it states in its appeal brief that East would generate a reaction force "that [is] mainly backward, not downward." (Emphasis added.)

Although operational characteristics of an apparatus may be apparent from the specification, we will not read such characteristics into the claims when they cannot be fairly connected to the structure recited in the claims. See In re Self, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982). When given their broadest

reasonable interpretation, the claims on appeal sweep in the prior art, and the prior art would have directed an artisan of ordinary skill to make the combination cited by the examiner. Frase teaches the use of sweeps having different structures with a cultivator unit, thus motivating an artisan to substitute other sweeps, and East discloses a sweep that meets the claim limitations. Hiniker's proffered facts, including its evidence of secondary considerations of nonobviousness, are not commensurate with the claim scope and are therefore unpersuasive. The invention disclosed in Hiniker's written description may be outstanding in its field, but the name of the game is the claim. See Giles Sutherland Rich, Extent of Protection and Interpretation of Claims--American Perspectives, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499 (1990) ("The U.S. is strictly an examination country and the main purpose of the examination, to which every application is subjected, is to try to make sure that what each claim defines is patentable. To coin a phrase, the name of the game is the claim.").

In this appeal of an obviousness determination involving an invention closely related to the invention in the seminal obviousness case, Graham v. John Deere Co., 383 U.S. 1 (1966), we affirm the Board's rejection of the claims.

AFFIRMED