

**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(2) is not binding precedent of the Board.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. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

***Ex parte*** WILLIAM C. OTTEMANN

---

Appeal No. 97-2227  
Application 08/254,978<sup>1</sup>

---

ON BRIEF

---

Before COHEN, MEISTER and FRANKFORT, ***Administrative Patent Judges.***

MEISTER, ***Administrative Patent Judge.***

**DECISION ON APPEAL**

William C. Ottemann (the appellant) appeals from the final rejection of claims 1-13, the only claims present in the application.

---

<sup>1</sup>Application for patent filed June 07, 1994.

Appeal No. 97-2227  
Application 08/254,978

We REVERSE and, pursuant to our authority under the provisions of 37 CFR § 1.196(b), enter a new rejection of claims 9-13.

The appellant's invention pertains to a sailboat winch having four speeds at successively higher gear ratios. Independent claim 1<sup>2</sup> is further illustrative of the appealed subject matter and reads as follows:

1. A sailboat winch having four speeds at successively higher gear ratios comprising a support base, a drum rotatably mounted on said support base, a central rotary drive shaft extending within said drum, first drive means between said shaft and said drum for driving said drum at a gear ratio, first drive train means between said shaft and said drum for driving said drum in a third and fourth gear at a first location on said drum, and second drive train means between said shaft and said drum, independent of said first drive train means, for driving said drum in a second gear at a second location on said drum.

The references relied on by the examiner are:

Atfield et al. (Atfield)	4,725,043	Feb. 16, 1988
Dudden	GB 2 109 489	Jun. 02, 1983

---

<sup>2</sup> Notwithstanding the examiner's statement on page 3 of the answer that the copy of the claims in the appendix to the brief "is correct," we note that in claim 1 (as reproduced in this appendix) "said second drive train means" should be -- and second drive train means --.

Appeal No. 97-2227  
Application 08/254,978

(Great Britain)

Claims 1, 2 and 9-13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Atfield.

Claims 3-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Atfield in view of Dudden.

Claims 1-9, 12 and 13 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which the appellant regards as the invention.<sup>3</sup>

The examiner's rejections are explained on pages 4-7 of the answer. The arguments of the appellant and examiner in support of their respective positions may be found on pages 11-16 of the brief, pages 1-5 of the reply brief, pages 8-10 of the answer and pages 2 and 3 of the supplemental answer.

#### **OPINION**

As a preliminary matter, we base our understanding of the appealed subject matter upon the following interpretation of

---

<sup>3</sup> This rejection was set forth as a new ground of rejection in the answer.

Appeal No. 97-2227  
Application 08/254,978

the terminology appearing in the claims. In claim 1, line 5,<sup>4</sup> we interpret "a third and fourth gear" to be -- a third and fourth gear ratio -- and, line 7, "a second gear" to be -- a second gear ratio --. This interpretation is necessary in order to provide consistency with the previously recited "a first gear ratio" (claim 1, line 4).

We have carefully reviewed the appellant's invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellant in the brief and by the examiner in the answer. As a consequence of this review, we will not sustain any of the above-noted rejections. We will, however, enter a new rejection of claims 9-13 under 35 U.S.C. § 112, second paragraph.

Considering first the rejection of claims 1-9, 12 and 13 under 35 U.S.C. § 112, second paragraph, it is the examiner's position that:<sup>5</sup>

---

<sup>4</sup> All reference to lines in claims in this decision is with respect to the claims as they appear in the appendix to the appellant's brief.

<sup>5</sup> If the examiner believed that claim 9 was indefinite under 35 U.S.C. § 112, second paragraph, then the examiner should have likewise rejected dependent claims 10 and 11 on this ground, since they would suffer from the same deficiencies as parent claim 9 by virtue of their dependency thereon.

Appeal No. 97-2227  
Application 08/254,978

With respect to Claims 1 and 12, lines 6 and 7, respectively, it is unclear as to what constitutes an independent second drive train means. In other words, how can the second drive train means be "independent" when it shares the same drive shaft (10) with the first drive train means. In this case, the second drive train means is not truly "independent" since the first drive train means and the second drive train means depend on the main shaft.

Further, claims 1-9, 12 and 13, are vague and indefinite. It is not clear as to what elements the "means" of the first drive train and the second drive train encompasses.

With respect to Claim 13, it is unclear whether or not the winch shifts through the claimed sequence because of the use of "can." [Answer, page 7.]

In support of this position the supplemental answer states

that:

Page 9 of the specification as well as instant figure 2 discloses members 66 and 68 and secondary shaft 54 which is located between the drive shaft 10 and drum 12. The secondary shaft 54 is clearly in the drive train of both first and second gear ratios and members 66 and 68 are needed to disengage the first gear ratio and engage either the second or third gear ratio. In other words, to engage the first and second gear ratios, a common shaft is used, namely secondary shaft 54. [Page 2.]

We do not agree with the examiner's position. The purpose of the second paragraph of Section 112 is to basically

Appeal No. 97-2227  
Application 08/254,978

insure, with a **reasonable** degree of particularity, an **adequate** notification of the metes and bounds of what is being claimed. **See *In re Hammack***, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970). When viewed in light of this authority, we cannot agree with the examiner that the metes and bounds of claims 1-9, 12 and 13 cannot be determined for the reasons noted by the examiner. A degree of **reasonableness** is necessary. As the court stated in ***In re Moore***, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971), the determination of whether the claims of an application satisfy the requirements of the second paragraph of § 112 is

merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a **reason-able** degree of precision and particularity. It is here where the definiteness of language employed must be

analyzed -- not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. [Emphasis ours; footnote omitted.]

As to the position set forth in the supplemental answer, the examiner has treated the "secondary shaft 54" as an entirely separate element from the claimed central drive

Appeal No. 97-2227  
Application 08/254,978

shaft. However, consistent with the appellant's specification and the claimed subject matter as a whole, one of ordinary skill in this art would consider the shaft 10 and the secondary shaft 54 to collectively define the claimed central drive shaft. Note, for example, that claim 3 (which depends on claim 1) sets forth that the sun gear is "secured on said shaft." Inasmuch as (1) the only shaft previously recited is the "central rotary drive shaft" in parent claim 1 and (2) that the sun gear 80 is in fact mounted on secondary shaft 54, it would be readily apparent to the artisan that the claimed "central rotary drive shaft" refers collectively to drive shaft 10 and secondary shaft 54. This is particularly the case, since these two shafts are splined together and rotate as a unit to provide rotary motion to the various gears.

As to the position in the answer, the examiner apparently believes that the second drive train means cannot be considered to be independent of the first drive train means since they are both driven by the same "shaft." However, as the appellant has correctly articulated on pages 1 and 2 of

the reply brief:

The drive trains are the gearing between the drive shaft [i.e. collectively shafts 10 and 54 which are splined together] and the drum. The shaft and the drum are both "common" elements in that they are engaged with the two drive trains. The drive shaft and drum are recited as separate elements in the claims. The drive trains are recited as being between the drive shaft and the drum. Thus, the drive trains are separate and independent in the sense that they are capable of separate and independent operation between the shaft and the drum. . . . The shaft does not form a part of the drive trains as claimed.

With respect to the examiner's contention that it is not clear as to what elements the first and second drive train "means" encompass, consistent with the appellant's specification the artisan would understand the first drive train means to encompass elements 30, 32, 34, 36, 38, 40, 44, 46, 48, 50 and 52 and the second drive train means to encompass elements 80, 82, 84 and 86.

As to the examiner's contention that the word "can" in the recitation in claim 13 that "said winch can shift automatically<sup>6</sup> through the sequence of first, third and

---

<sup>6</sup> It is readily apparent that the appellant and, indeed the reference Atfield (see, e.g., column 6, lines 47-53), have used the term "automatically" in other than its normal sense. That is, it is used in the sense that, once a given gear ratio has been selected (e.g., by depressing button 64 or moving

Appeal No. 97-2227  
Application 08/254,978

fourth . . ." (footnote added), the artisan would interpret "can shift automatically" to be -- shifts automatically --.

Since we are not of the opinion that claims 1-9, 12 and 13 are indefinite for the reasons stated by the examiner, we will not sustain the rejection of these claims under 35 U.S.C. § 112, second paragraph.

Turning to the rejections of claims 1-13 under 35 U.S.C. § 103, for reasons stated *infra* in our new rejection under the provisions of 37 CFR 1.196(b), we are of the opinion that claims 9-13 fail to satisfy the requirements of 35 U.S.C. 112, second paragraph. We note that normally a claim which fails to comply with the second paragraph of § 112 will not be analyzed as to whether it is patentable over the prior art since to do so would of necessity require speculation with regard to the metes and bounds of the claimed subject matter. **See *In re Steele***, 305 F.2d 859, 862-63, 134 USPQ 292, 295-96 (CCPA 1962) and ***In re Wilson***,

424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). In this

---

operating lever 108), an interchange to a different gear ratio may be accomplished by simply reversing the direction of shaft rotation.

Appeal No. 97-2227  
Application 08/254,978

instance, however, we are of the opinion that the rejection of claims 9-11 cannot be sustained on the basis of those portions of the subject matter defined by these claims that we can understand. Additionally, with respect to claims 12 and 13, in an effort to avoid piecemeal appellate review (*see Ex parte Saceman*, 27 USPQ2d 1472, 1474 (Bd. Pat. App. & Int. 1993) and *Ex parte Ionescu*, 222 USPQ 537, 540 (Bd. App. 1984)), we make the following interpretations of the terminology appearing in these claims for the purpose of reaching the rejections based on prior art. In claim 12, lines 4 and 7, we interpret "common drive train means" to be -- partially common drive train means --.

Turning specifically to the rejections based on prior art, the examiner concedes that Atfield does not teach a second drive means that is independent of the first drive train means (independent claim 1) or a second gear drive train means that is separate and independent of a "partially" common drive train means (independent claim 12) but, nevertheless, takes the position that

It is desired that a winch be efficient per turn of the main drive shaft. A second drive train having a

Appeal No. 97-2227  
Application 08/254,978

common gear train as the third and fourth gears will be

inefficient because of the long drive train to the final drive gear. In view of the above consideration, it would have been obvious to one of ordinary skill in the art to provide Atfield et al with a second drive train, separate and independent of the first drive train, between the shaft and drum to obtain a more efficient second drive train as well as to reduce wear and tear on the gears comprising the first drive train. [Answer, pages 4 and 5.]

We must point out, however, that obviousness under § 103 is a legal conclusion based on **factual evidence** (*In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)) and the examiner may not resort to speculation or unfounded assumptions to supply deficiencies in establishing a factual basis (*see In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967)). The mere fact that, generally speaking, (1) a second drive train which has a common gear train with the third and fourth gears might be inefficient or (2) that providing a second drive train which is separate and independent of the first drive train would reduce wear and tear, does not provide a sufficient basis for concluding that such an arrangement would have been "obvious." Instead, it is

Appeal No. 97-2227  
Application 08/254,978

well settled that in order to establish a **prima facie** case of obviousness the prior art teachings must be sufficient to suggest to one of ordinary skill in the art making the modification needed to arrive at the claimed invention. **See, e.g., In re Lulu**, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984). Here, there is absolutely no suggestion whatsoever in Atfield for making the modification which the examiner seeks to dismiss as "obvious."

With respect to independent claim 9, the examiner contends that Atfield in Fig. 1 clearly shows a "torsion spring (87)" (answer, page 9). We have carefully reviewed the teachings of Atfield but find no mention whatsoever of a "torsion spring." As to the examiner's reliance on Atfield's Fig. 1, the spring depicted therein appears to be a coil spring, not a torsion spring. In any event, claim 9 expressly requires a **torsion bar** having ends, with one end being secured to disengage means and means for applying rotary torque to the other end. There is nothing in Atfield which would even remotely

Appeal No. 97-2227  
Application 08/254,978

suggest such an arrangement.

As to claims 3-8, the examiner has additionally relied on the teachings of Dudden. We have, however, carefully reviewed the teachings of this reference, but find nothing therein which would overcome the deficiencies of Atfield that we have noted above.

In view of the foregoing, we will not sustain the rejections of claims 1-13 under 35 U.S.C. § 103.

Under the provisions of 37 CFR § 1.196(b) we make the following new rejection.

Claims 9-13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention. The purpose of the second paragraph of § 112 is to provide those who would endeavor, in future enterprises, to approach the area circumscribed by the claims of a patent, with adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance. *In re Hammack*,

Appeal No. 97-2227  
Application 08/254,978

*supra*, 427 F.2d at 1382, 166 USPQ at 208. Moreover, in order to satisfy the requirements of the second paragraph of § 112, a claim must accurately define the invention in the technical sense. **See *In re Knowlton***, 481 F.2d 1357, 1366, 178 USPQ 486, 492-93 (CCPA 1973). In addition, when determining the metes and bounds of claimed subject matter, no claim may be read apart from and independent

of the supporting disclosure on which it is based. **See *In re Cohn***, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971).

Applying these principles to claims 9-13, we do not believe that the subject matter defined therein has been set forth with the requisite degree of precision and particularity. Specifically, in line 4 of independent claim 9 it is unclear whether the recitation "said drive means" refers to "rotatable drive means" (line 2) or "unidirectional drive means" (line 3). It is also unclear what structure "unidirectional drive means" (line 3) is intended to encompass. Inasmuch as this claim recites "disengage means for manually

disengaging said unidirectional drive means," it would at first appear this unidirectional drive means corresponded to ring gear 84. However, line 2 of claim 9 has previously set forth "rotatable drive means for providing . . . second gear" and, to the extent that ring gear 84 can be considered to be a "drive means," it is a necessary part of the rotatable drive means for providing second gear, rather than an entirely different element as the claim sets forth (compare, e.g., claim 12 wherein the appellant has set forth ("means for engaging and disengaging said second gear drive train means").

Moreover, independent claim 12 sets forth "common" drive train means ***between the shaft and drum*** for providing third and fourth gears. We must point out, however, that while some elements of the drive train means for providing third and fourth gears are "common" (e.g., elements 34, 36, 38, 40) others are not (e.g., elements 30, 32, 44, 46, 48, 50, 52). Thus, claim 12 does not accurately define the subject set forth therein in a technical sense.

Appeal No. 97-2227  
Application 08/254,978

In addition claim 13 sets forth that the winch "can shift **only** between second and third gears with the second gear drive trains means being engaged" (emphasis ours). Page 9 of the specification states, however, that when "second gear is engaged, the winch can only be driven in **first**, second and third gears" (emphasis ours). Thus this claim, when read in light of the specification, results in an inexplicable inconsistency which renders it indefinite.

In summary:

The rejections of (1) claims 1-9, 12 and 13 under 35 U.S.C. § 112, second paragraph, and (2) claims 1-13 under 35 U.S.C. § 103 are reversed.

A new rejection of claims 9-13 under 35 U.S.C. § 112, second paragraph, has been made.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)).

Appeal No. 97-2227  
Application 08/254,978

37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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

Appeal No. 97-2227  
Application 08/254,978

**REVERSED**  
**37 CFR § 1.196(b)**

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
JAMES M. MEISTER	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
	)	
CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	

Appeal No. 97-2227  
Application 08/254,978

Russle W. Pyle  
Juettner, Pyle, Lloyd & Piontek  
221 North LaSalle Street  
Suite 850  
Chicago, IL 60601