

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TEDDY J. HIRSCH and DON L. IVEY

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Appeal No. 1999-1037  
Application 08/804,284

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HEARD: FEBRUARY 22, 2000

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Before ABRAMS, STAAB and BAHR, *Administrative Patent Judges*.  
STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1, 3, 4, 11, 12 and 15. Claims 20-22, the only other claims remaining in the application, have been allowed. An amendment filed subsequent to the final rejection on April 24, 1998 has been entered.

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Appellant's invention "relates to crushable roadway crash cushions and, more specifically, those crash cushions which contain collapsible barrels, drums or like members" (specification, page 1). Independent claims 1 and 11 are representative of the appealed subject matter. A copy of the appealed claims can be found in an appendix to appellant's brief.

The references of record relied upon by the examiner in support of rejections under 35 U.S.C. § 103 are:

Boedecker, Jr. et al. (Boedecker) 5, 1974	3,845,936	Nov.
Carney, III ('326) 1991	5,011,326	Apr. 30,
Carney, III ('112) 1995	5,403,112	Apr. 4,

A reference of record relied upon by this merits panel of the Board in support of a new rejection pursuant to 37 CFR § 1.196(b) is:

Carney, III ('310) 1980	4,200,310	Apr. 29,
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The following rejections under 35 U.S.C. § 103 are before

us for review:<sup>1</sup>

1) claims 1, 3 and 4, unpatentable over Boedecker in view of Carney '326; and

2) claims 11, 12 and 15, unpatentable over Boedecker in view of Carney '112.

*Rejection 1*

Considering first the examiner's rejection of claims 1, 3 and 4 as being unpatentable over Boedecker in view of Carney '326, the examiner considers that Boedecker discloses the subject matter of claim 1 except for a structural reinforcement "comprising a telescoping bracket assembly." In particular, the examiner considers that Boedecker's sheet-like

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<sup>1</sup> In the final rejection, claims 1, 3, 4, 11, 12, 15, and 20-22 were also rejected under 35 U.S.C. § 112, second paragraph. The rejection of claims 20-22 on this ground has been expressly withdrawn. See page 2 of the answer. Regarding the rejection of claims 1, 3, 4, 11, 12 and 15 under 35 U.S.C. § 112, second paragraph, since these claims have been amended subsequent to the final rejection in such a manner so as to apparently overcome the examiner's criticisms thereof, and since no mention of this rejection has been made by the examiner in the answer, we presume that the examiner also has withdrawn the final rejection of claims 1, 3, 4, 11, 12, and 15 on this ground. *Ex parte Emm*, 118 USPQ 180, 181 (Bd. App. 1957).

"fish scales" 60<sup>2</sup> comprise structural reinforcement extending along a portion of a side of the crash cushion. The examiner further considers (answer, pages 3-4) that Carney '326 "teaches that it is known in the art to form a cushioning apparatus with telescoping support members (discussed in column 3 line 57 through column 4 line 2) comprising tubes viewed as a pipe segment slidably disposed within a sleeve." According to the examiner (answer, page 4), it would have been obvious to one of ordinary skill in view of these teachings to modify the bracket of the structural reinforcement of Boedecker by incorporating therein telescoping tubes comprising a pipe segment slidably disposed within a sleeve.

We cannot support the examiner's position. The disclosure of Carney '326 relied upon by the examiner is found in the "Background of the Invention" section of Carney '326 and reads as follows:

Examples of other forms of stationary energy absorbing barriers, which are known to exist in the prior art, include the following: . . . a *U-shaped*

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<sup>2</sup> As explained at column 5, line 53, through column 6, line 5, and as shown in Figures 6A-6C of Carney '326, "fish scales" 60 are composite structures, each comprising a plywood sheet 62 having a metal sheet 66 secured thereof.

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*tubular guardrail energy absorbing barrier that absorbs energy by means of the motion of supporting telescopic tubes such that upon impact, the impact forces are transmitted axially to arms, which contain many stainless steel torus elements that are squeezed between two cylindrical tubes . . . .*  
[Column 3, line 57, through column 4, line 2; emphasis added.]

There are no drawings or other detailed description of this device in Carney '326.

We have carefully considered the above noted disclosure of Carney '326. We also have considered the rest of the disclosure of Carney '326. Despite our best efforts, we simply cannot determine with any degree of certainty precisely what the device described at column 3, line 57, through column 4, line 2, might

look like. In a nutshell, the teachings of Carney at column 3, line 57, through column 4, line 2, are simply too obscure to provide a basis for establishing a *prima facie* case of obviousness of the subject matter of claim 1. More specifically, the cryptic description of "a U-shaped tubular guardrail" having "supporting telescopic tubes" that transmit

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impact forces axially to "arms" which may contain "torus elements" that are squeezed between "two cylindrical tubes" is vague and ambiguous and cannot reasonably be considered to have suggested to the ordinarily skilled artisan the kind of modification to Boedecker necessary to arrive at the subject matter of claim 1. Moreover, it is not clear how the examiner intends to modify the primary reference in that it is not clear what constitutes the "bracket" of Boedecker's structural reinforcement. In addition, we are in agreement with appellant's argument on page 9 of the brief that neither one of the applied references teaches the claimed telescoping bracket assembly surrounding a collapsible member. For these reasons, the standing § 103 rejection of claims 1, 3 and 4 cannot be sustained.

*Rejection 2*

Turning to the examiner's rejection of claims 11, 12 and  
15

as being unpatentable over Boedecker in view of Carney '112, the examiner concedes that Boedecker does not disclose collapsible members having different resistances to crushing,

as called for in claim 11. Nevertheless, the examiner considers (answer, page 4) that Carney '112 teaches this concept. Based on this alleged teaching of Carney '112, the examiner concludes that it would have been obvious to modify the collapsible members of Boedecker by providing in the Boedecker device collapsible members having different resistances to crushing in order to increase the control of deformation of the collapsible members thereby increasing the cushioning effect of the apparatus.

The thrust of Carney '112 is the use of a particular type of plastic material, namely, high molecular weight/high density polyethylene (HMW/HDPE), to fabricate collapsible members for crushable roadway crash cushions. We appreciate that in Carney '112 the collapsible members of HMW/HDPE comprise cylinders that may have different diameters and different wall thicknesses (column 3, lines 59-61; column 16, lines 52-54). We also appreciate that Carney '112 discloses that there are a variety of prior art highway safety crash cushions that utilize cylinders made of mild steel where the wall thicknesses may vary from cylinder to cylinder (column 9, lines 16-18; column 9, lines 21-23). Still further, we

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appreciate that collapsible members made of cylinders of HMW/HDPE may be utilized in such prior art devices. Finally, we acknowledge that the crush resistance of a collapsible member fabricated as a cylinder may very well be varied by changing the wall thickness of the cylinder *while retaining all other design aspects thereof* (i.e., by changing *only* the wall thickness of the cylinder). The difficulty we have with the examiner's position, however, is its failure to specifically point out where in the 50 sheets of drawings and 16 columns of specification of Carney '112 there is found a teaching of using collapsible members of different crush resistance in a highway safety crash cushion. Moreover, while we appreciate that in evaluating prior art references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom (*see In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968)), in the present instance we do not view this maxim of patent law as relieving the examiner of the initial burden of pointing out where the applied prior art teaches or suggests

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appellant's invention.

In the present application, appellant has reasonably challenged (brief, page 12) the examiner's findings with respect to Carney '112. In response, the examiner has merely reiterated (answer, page 6) that "[Carney '112] teaches that it is known in the art to form collapsible members having different resistances to crushing" without pointing out where this teaching is found in the reference. Because it is not apparent to us on this record that one of ordinary skill in the art would have gleaned from Carney '112 a teaching of providing collapsible members of varying crush resistance in a highway safety crash cushion, we hold that the examiner has not established a *prima facie* case of obviousness of claims 11, 12 and 15 based on the teachings of Boedecker and Carney '112. It follows that we will not sustain the examiner's rejection of claims 11, 12 and 15.

*New Rejections under 37 CFR § 1.196(b)*

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Claims 11, 12 and 15 are rejected under 35 U.S.C. § 112, first paragraph, as being based on a disclosure that fails to comply with the written description requirement found in that paragraph of the statute.

The test for determining compliance with the written description requirement found in the first paragraph of 35 U.S.C. § 112 is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. *In re Kaslow*, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983). The content of the drawings may also be considered in determining compliance with the written description requirement. *Id.*

In the present application, the originally filed disclosure does not provide support for a crash cushioning

apparatus that comprises a first collapsible member having a first resistance to crushing and a second collapsible member having a second lesser resistance to crushing, wherein the first collapsible member is located along a longitudinal side of the cushioning apparatus *and closest to a fixed structure*,<sup>3</sup> which limitation was added to claim 11 by the amendment filed February 19, 1998 (Paper No. 9). Accordingly, the originally filed disclosure would not reasonably convey to the artisan that appellant had possession at that time of the apparatus as now recited in claims 11, 12 and 15.

Claims 11, 12 and 15 are also rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter appellant regards as the invention.

In determining whether the claims set out and circumscribe a particular area with a reasonable degree of

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<sup>3</sup> Based on a reading of claim 11 and claim 12, it is clear that the "first collapsible member" of claim 11 corresponds to one of the disclosed barrels A, that the "second collapsible member" of claim 11 corresponds to one of the disclosed barrels B, and that the "third collapsible member" of claim 12 corresponds to one of the disclosed barrels C.

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precision and particularity, the definiteness of the language employed in the claims 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. *In re Johnson*, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In addition, claims must accurately define the invention. *In re Knowlton*, 481 F.2d 1357, 1365, 178 USPQ 486, 492 (CCPA 1973). The above discussed lack of descriptive support in appellant's disclosure for the subject matter recited in claim 11 renders the scope and accuracy of claims 11, 12 and 15 unclear when they are read, as they are required to be, in light of the underlying disclosure.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,200,310 to Carney, of record.

Carney '310 discloses an energy absorbing system 10 comprising a plurality of collapsible barrels 16 mounted to an object 12, which may be either a highway service vehicle or a stationary energy absorbing barrier (column 4, lines 13-16;

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column 6, lines 5-16; column 12, line 66 through column 13, line 5). The system includes a U-shaped frame made up of impact plate assembly 18 and structural member 106, 108.

Object 12 includes structural tubing members 42, 44.

Structural members 106, 108 are received in structural tubing members 42, 44 for sliding movement therein (column 11, lines 28-33). When a vehicle collides with the impact plate assembly, the impact plate assembly and structural members 106, 108 are displaced as a unit, with the structural members 106, 108 sliding in the tubing members 42, 44, while the barrels 16 collapse to absorb the impact forces of the collision. See Figure 8.

Reading claim 1 on the energy absorbing system of Carney '310, the Carney '310 system comprises a crash cushioning apparatus capable of cushioning impacts with a fixed structure comprising a plurality of collapsible members 16 extending between a downstream end and an upstream end and presenting a longitudinal side, and a structural reinforcement 18, 42, 44, 106, 108 extending along a portion of the side, of the collapsible members. The structural reinforcement of Carney

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'310 comprises elements 106, 108 capable of reducing penetration of the collapsible members from an impact to the longitudinal side, at least to some extent, and a telescoping bracket assembly 42, 44 and 106, 108 that surrounds at least one of the collapsible members 16.

*Remand*

Pursuant to 37 § CFR 1.196(a) and MPEP § 1211, this application is also remanded to the examiner for consideration of the following matters.

Claims 3 and 4 depend from claim 1 and further call for the telescoping bracket assembly to be in the form of either a U-shaped (claim 3) or V-shaped (claim 4) section of pipe nested within a sleeve. The examiner should consider whether it would be appropriate to enter a new prior art rejection of either of these claims in light of the disclosure of Carney '310 and other prior art of which the examiner may be aware.

Claim 11 calls for a cushioning apparatus comprising a first collapsible member having a first resistance to crushing, and a second collapsible member having a second

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resistance to crushing, with the second resistance to crushing being lesser than the first resistance. Carney '310 discloses an energy absorbing system having collapsible barrels 16 of varying crush resistance to cause the barrels to collapse with desired predetermined crushing characteristics. See column 8, line 63 through column 9, line 4; column 12, lines 28-65.

Thus, the teachings of Carney '310 would appear to be highly relevant to the subject matter presented in claims 11, 12 and 15. The examiner should consider whether it would be appropriate to enter a new prior art rejection of any of these claims in light of the above noted disclosure of Carney '310, either alone or in combination with other prior art of which the examiner may be aware.

If the examiner determines that a rejection based on Carney '310, either alone or in combination with other prior art, is appropriate, then such rejection(s) should be made and appellant provided with an opportunity to respond thereto.

*Summary*

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The examiner's rejections of the appealed claims are reversed.

New rejections of claims 1, 11, 12 and 15 pursuant to our authority under 37 CFR § 1.196(b) have been made.

In addition, this application is remanded to the examiner under 37 § CFR 1.196(a) for consideration of whether it would be appropriate to enter a new prior art rejection of any of claims 3, 4, 11, 12 and 15 in light of the teachings of Carney '310.

The decision of the examiner is reversed.

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)). 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

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(§ 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).

*REVERSED AND REMANDED,*  
*37 CFR § 1.196(b)*

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
	)	
	)	
LAWRENCE J. STAAB	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
JENNIFER D. BAHR	)	
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