

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SUSAN M. DUNCAN

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Appeal 2007-2581  
Application 09/881,856<sup>1</sup>  
Technology Center 2800

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Decided: March 25, 2008

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Before JOSEPH F. RUGGIERO, ANITA PELLMAN GROSS, and MARC  
S. HOFF, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 1, 3-6, 8-22, 25, 26, 28, and 31-38. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellant's invention relates to a design tool for use in association with building design plans (Specification 2). A three-dimensional figure of a

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<sup>1</sup> Application filed June 13, 2001. The real party in interest is ADAptations, inc.

human being seated in a wheelchair is mounted on a base portion, which is sized to indicate the turning radius of such a person (*id.*). In some embodiments, a wand is secured to the figure such that a user may easily manipulate the design tool (Specification 2-3).

Claims 1 and 35 are exemplary:

1. A design tool for use in association with a design plan having spaces of a known scale for functional and space planning, comprising:

a three-dimensional member shaped as a human seated in a wheelchair, the member scaled to allow accurate representation of the movement of the three-dimensional member within the spaces of known scale of the design plan, and

a three-dimensional base extending downwardly and outwardly from the three-dimensional member, the base having a peripheral edge shaped to coincide with a scaled space envelope desired for movement of a wheelchair to visually illustrate the feasibility of movement of the wheelchair in a space represented by the design plan.

35. A method for operating a three-dimensional tool in association with a design plan having spaces of a known scale for functional and space planning, comprising:

selecting a tool having a three-dimensional base including a peripheral edge shaped to coincide with a scaled space envelope appropriately sized to the scale of the design plan to allow accurate representation of the movement of a support device used by persons with disabilities and the aging population in a space represented by the design plan;

positioning the tool within the spaces of a known scale of the design plan;

manipulating the tool within the spaces of a known scale of the design plan to visually illustrate the feasibility of movement within the spaces of a known scale in light of the size of the represented support device; and

determining the size of the open spaces of a known scale of the design plan necessary to allow movement of the support device used by persons with disabilities and the aging population based on evaluating the visual illustration of the feasibility of movement within the spaces of a known scale in light of the size of the represented support device

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Bobrick Catalog, *Space for People in Wheelchairs is a Fundamental Design Consideration* (1993).

Marshall	US 1,625,041	Apr. 19, 1927
Riehle	US 4,250,642	Feb. 17, 1981
Stansbury, Jr.	US 4,276,695	Jul. 7, 1981

Claims 1, 14, 19-22, 25, 28, 33-35, 37, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bobrick in view of Marshall.

Claims 3-6, 8, 9, 11-13, 15, 16, 18, 22, 26, 31, 32, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bobrick in view of Marshall and Stansbury.

Claims 10 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bobrick in view of Marshall, Stansbury, and Riehle.

Appellant contends that the Examiner erred in his rejections because the Examiner has not supplied appropriate motivation to combine the references, and thus has not made out a prima facie case of obviousness (Br.

10, 11). Appellant further contends that even if a prima facie case of obviousness has been made out, their evidence of secondary considerations is sufficient to rebut it (Br. 15, 18). The Examiner contends the claims are properly rejected because it would have been obvious to modify Bobrick to include the three-dimensionality suggested by Marshall, and/or to include the wand or handle disclosed in Stansbury, and that Appellant's evidence of secondary considerations is not persuasive (Ans. 9, 11, 12).

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for their respective details.

#### ISSUE

There are two principal issues in the appeal before us.

The first issue is whether the patents to Bobrick, Marshall, and Stansbury may properly be combined in order to obtain the instant invention.

The second issue in the appeal before us is whether Appellant's declarations alleging the secondary considerations of commercial success and long-felt need are sufficient to overcome the prima facie case of obviousness set forth by the Examiner.

#### FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

##### *The Invention*

1. According to Appellant, she has invented a design tool for use in association with building design plans (Specification 2).

2. A three-dimensional figure of a human being seated in a wheelchair is mounted on a base portion, which is sized to indicate the turning radius of such a person (*id.*).

3. In some embodiments, a wand is secured to the figure such that a user may easily manipulate the design tool (Specification 2-3).

*Bobrick*

4. Bobrick teaches a clear rigid plastic template scaled to show the turning radius of a person seated in a wheelchair. The template may be placed over building drawings to evaluate proper clearance and maneuverability within the installation (Bobrick, Appellant's Appendix B).

*Marshall*

5. Marshall teaches a means for investigating street occurrences, including a scale chart illustrating a variety of types of streets and intersections (Fig. 1), and a plurality of three-dimensional scale figures of common objects such as cars, trucks, trains, people, etc. (Figs. 2-13). The figures may be arranged on the chart according to a statement given by a witness as part of the investigation of an accident (p. 2, l. 114 – p. 3, l. 9).

*Stansbury*

6. Stansbury teaches a mechanical roller measure device for measuring distance along a surface (Abstract). A handle may be attached to the roller housing so that the device can either be pushed or pulled in its forward measuring direction (*id.*).

*Riehle*

7. Riehle teaches a building planning aid including a transparent foil, adhesive on one side, on which may be placed planning elements (representing, e.g., machines or furniture)(Abstract; col. 3, ll. 48-49).

8. Riehle further notes that an alternative in the art is to use a sheet metal plate, on which magnetic planning elements may be placed (col. 1, ll. 32-36).

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant. *Piasecki*, 745 F.2d at 1472. Thus, the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner's conclusion.

“[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.”

*KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007) (quoting *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282 (1976)).

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one form of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, 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 his or her skill.

*Id.* at 1740. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

To be given substantial weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to

the subject matter as claimed, and therefore the Examiner must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 305 (Fed. Cir. 1985). The term “nexus” designates a factually and legally sufficient connection between the objective evidence of nonobviousness and the claimed invention so that the evidence is of probative value in the determination of nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387 (Fed. Cir. 1988).

In assessing the probative value of an expert opinion, the Examiner must consider the nature of the matter sought to be established, the strength of any opposing evidence, the interest of the expert in the outcome of the case, and the presence or absence of factual support for the expert’s opinion. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d at 294 (Fed. Cir. 1985). *See also In re Beattie*, 974 F.2d 1309 (Fed. Cir. 1992) (declarations of seven persons skilled in the art offering opinion evidence praising the merits of the claimed invention were found to have little value because of a lack of factual support).

#### ANALYSIS

##### Rejections under 35 U.S.C. § 103

##### *Claims 1, 14, 19-22, 25, 28, 33-35, and 37-38*

We select claim 1 as representative of this group, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii). Appellant argues that the Examiner erred in rejecting independent claims 1, 14, 21, 28, and 35 because the Examiner failed to make out a prima facie case of obviousness.

Appellant asserts that Bobrick does not suggest that a three-dimensional member and base would provide a superior means for assessing the location of design elements (App. Br. 10); that Marshall does not suggest visually illustrating the feasibility of movement of a wheelchair (*id.*); that there is no motivation to combine the references (*id.*); and that the Examiner engaged in impermissible hindsight reconstruction (App. Br. 11).

The Examiner contends that the claims are properly rejected because Bobrick teaches a circular base being engageable with design plans to show the turning radius of a person in a wheelchair (Ans. 3), and that Bobrick may be modified according to Marshall to include a three-dimensional figure “to convey information to a user” (Ans. 8). The Examiner notes that Bobrick recognizes “the utility of a third dimension in icon figures illustrated in Figure 1” (Ans. 9), further suggesting the desirability of the combination.

We agree with the Examiner. Appellant’s arguments amount to attacking the references individually, which is not persuasive to overcome an obviousness rejection based on a combination of references. We concur in the Examiner’s reasoning that it would have been obvious to modify the template of Bobrick, scaled to show the turning radius of a person operating a wheelchair (FF 4), to include a three-dimensional figure as taught by Marshall (FF 5), in order to more effectively convey a sense of the presence of the person to the user operating the figure. We further find that the combination of the two-dimensional turning radius template of Bobrick with the three-dimensional figure of Marshall amounts to no more than the predictable use of prior art elements according to their established functions,

which yields no more than one would expect from such an arrangement.  
*KSR*, 127 S. Ct. at 1739; *id.* at 1740.

We therefore do not find error in the Examiner's rejection of claims 1, 14, 19-22, 25, 28, 33-35, 37, and 38 under 35 U.S.C. § 103.

*Claims 3-6, 8, 9, 11-13, 15, 16, 18, 22, 26, 31, 32, and 36*

We select claim 4 as representative of the group, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii). Appellant argues that the Examiner erred in rejecting independent claims 4, 6, 14, and 22 because Bobrick and Marshall fail to disclose the three-dimensional member and base, as discussed *supra*; because Bobrick, Marshall, and Stansbury fail to suggest a combination including a wand, or "second component," or "second means," extending from the wheelchair figure (App. Br. 12); because it is "readily apparent that securing a wand to a thin flexible template [i.e., Bobrick] would be unworkable" (App. Br. 13); that there is no teaching or suggestion to secure a handle to the invention of Bobrick or Marshall (*id.*); that there is no motivation to combine the references; and that the Examiner engaged in impermissible hindsight reconstruction (*id.*).

The Examiner contends that it would have been obvious to modify the combination of Bobrick and Marshall further to include a wand or handle member, as taught by Stansbury, in order to manipulate the icon figure more easily and with better control than reaching and gripping the icon figure itself (Ans. 5).

We agree with the Examiner's reasoning. Stansbury teaches that, in some embodiments, a handle may be attached to the roller housing so that the device can either be pushed or pulled in its forward measuring direction

(FF 6). Stansbury thus suggests that the addition of a handle provides the advantage of making an object easier to move around. We further find that supplementing the previously expressed combination of Bobrick and Marshall by including a wand or handle as suggested by Stansbury amounts to no more than the predictable use of prior art elements according to their established functions, which yields no more than one would expect from such an arrangement. *KSR*, 127 S. Ct. at 1739; *id.* at 1740.

We therefore do not find error in the Examiner's rejection of claims 3-6, 8, 9, 11-13, 15, 16, 18, 22, 26, 31, 32, and 36 under 35 U.S.C. § 103.

*Claims 10 and 17*

Appellant presents no separate argument for the patentability of these claims. Because we affirm the rejections of parent claims 6 and 14 respectively, we therefore also affirm the rejections of claims 10 and 17, for the same reasons.

*Claims 35-38*

Appellant relies primarily on the arguments made with respect to the first two groups of claims *supra*. Appellant's only separate arguments with regard to claims 35-38 are that Bobrick teaches "a static template that provides no ready means for movement along a design plan," and that Marshall "does not disclose movement, but rather teaches static positioning" (App. Br. 14).

We are not persuaded that Bobrick is any more or less "static" than Appellant's invention. Appellant does not disclose that their invention is self-propelled in any fashion, or equipped with wheels or other functionality providing easy mobility. The portion of Appellant's device that contacts the

design plans (i.e., the circular base) is identical to the portion of Bobrick that would contact design plans. Similarly, we see no reason why the person having ordinary skill in the art would not have moved or manipulated the figures in Marshall.

We further find that the combination of the two-dimensional turning radius template of Bobrick with the three-dimensional figure of Marshall, with or without the wand of Stansbury, and the manipulation of such a tool within the spaces of a known scale of a design plan, amounts to no more than the predictable use of prior art elements according to their established functions, which yields no more than one would expect from such an arrangement. *KSR*, 127 S. Ct. at 1739 and 1740.

*Evidence of commercial success*

We agree with the Examiner that Appellant's affidavit proclaiming commercial success is not persuasive to overcome the prima facie case of obviousness explained *supra*. Appellant avers that they possess "100% of the market for such products" (App. Br. 17), but the nature of that market is not defined. There is no discussion, for example, of what other products in the market might serve as substitutes for Appellant's invention. Of particular relevance, since the circular turning-radius base portion of Appellant's invention is the portion that is moved along design plans to evaluate their accessibility, we are provided no information regarding the comparative sales of the Bobrick template, or other circular templates of the same dimensions.

*Evidence of long-felt need and failure of others*

We agree with the Examiner that Appellant's submitted affidavits testifying to long-felt need in the art are not persuasive to overcome the prima facie case of obviousness explained *supra*. The declarations of Duncan, Hartje, Miller, Tenenbaum, and Pace seek to show long-felt need and failure of others by stating that (a) existing products are "static," and do not show how wheelchairs move through and amongst space and located design elements (see, e.g., Declaration of Louis S. Tenenbaum ¶3); (b) manipulating existing products by hand over design plans is undesirable because the user's hand obscures part of the design plan; and (c) existing products such as the Bobrick template are not designed to be moved over a drawing (see, e.g., Declaration of Rex J. Pace ¶3).

We are not persuaded that prior devices such as Bobrick are any more or less "static" than Appellant's invention. Appellant does not disclose that their invention is self-propelled in any fashion, or equipped with wheels or other functionality providing easy mobility. The portion of Appellant's device that contacts the design plans (i.e., the circular base) is identical to the portion of Bobrick that would contact design plans. We are similarly unpersuaded that Appellant's invention results in any less obscuring of design plans than the hand manipulation of the Bobrick template, because Appellant's 3-D figure of the person in a wheelchair is affixed to the clear plastic base of the invention, obscuring whatever is beneath it just as a user's hand would do. Last, we are not convinced that the person having ordinary skill in the art would have had any particular difficulty moving the Bobrick template around design plans to simulate the mobility of a wheelchair-bound

person. It is easy to imagine that a user could simply push the Bobrick template along using the eraser end of a pencil, or any similar high-friction object.

We therefore affirm the rejection of claims 1, 3-6, 8-22, 25, 26, 28, and 31- 38 under 35 U.S.C. § 103.

#### CONCLUSION OF LAW

We conclude that Appellant has not shown that the Examiner erred in rejecting claims 1, 3-6, 8-22, 25, 26, 28, and 31- 38. Claims 1, 3-6, 8-22, 25, 26, 28, and 31- 38 are not patentable.

#### DECISION

The Examiner's rejection of claims 1, 3-6, 8-22, 25, 26, 28, and 31- 38 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tdl/gw

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