

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte YU ZHENG

Appeal 2008-1774
Application 10/745,269
Technology Center 3600

Decided: July 10, 2008

Before TONI R. SCHEINER, DONALD E. ADAMS, and
JEFFREY N. FREDMAN, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a collapsible structure. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

Background

“Collapsible objects have recently become popular with both adults and children. Many of these collapsible objects have a plurality of panels which may be twisted and folded to reduce the overall size of the object to facilitate convenient storage and use” (Spec. 1). The Specification notes that “these structures have been made into tents or outdoor structures that can be used by adults and children for camping or other outdoor purposes. These structures have also been used as beach cabanas” (Spec. 1).

Statement of the Case

The Claims

Claims 20-22 are on appeal. We will focus on claim 20, which is representative and reads as follows:

20. A collapsible structure that rests on a surface, comprising:
 - a bottom loop and a top loop, each loop having a foldable frame member that defines a periphery having an interior space;
 - a first fabric material extending between the top and bottom loops, with the first fabric material having a first side that is attached to the periphery of the top loop and a second side that is attached to the periphery of the bottom loop;
 - a second fabric that covers the interior space of the bottom loop, with the bottom loop resting on a surface; and
 - wherein the interior space of the top loop is devoid of fabric.

The prior art

The Examiner relies on the following prior art references to show unpatentability:

Chin U.S. 5,592,961 Jan. 14, 1997

Watson U.S. 1,990,804 Feb. 12, 1935

The issues

The rejection as presented by the Examiner is as follows:

Claims 20-22 stand rejected under 35 U.S.C. § 103(a) as being obvious over Chin and Watson (Ans. 3).

35 U.S.C. § 103(a) rejection over Chin and Watson

Appellant “submits that Chin has already addressed these two Objectives, so there would be no reason, incentive or need for a person skilled in the art to further meet these Objectives by removing the top panel 14, except through the use of impermissible hindsight reconstruction” (App. Br. 8). Appellant also contends that “a person skilled in the art who reviews the teachings in Chin would have no reason to provide any additional ventilation” (App. Br. 9). Appellant further argues that “a person skilled in the art who reviews the teachings in Chin would have no reason to remove the top panel 14 to further facilitate use by people having different heights” (App. Br. 9).

Appellant also argues that “the same function (providing access to the interior) is accomplished in a different way in Chin's booth because of the different construction between Chin's and Watson's booths. Thus, there would be no reason to borrow the ‘opened top’ concept from Watson and apply this concept to Chin's booth” (App. Br. 10).

The Examiner responds that

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the top loop of Chin to be devoid of fabric at its interior space, such as suggested by Watson, in

order to provide adequate ventilation and to accommodate users of various heights. The removability of the Chin top loop is a further suggestion to modify the top loop to be devoid of fabric at its interior space in order to facilitate adequate airflow and accommodate users of different heights.

(Ans. 4.)

The Examiner argues that “the device would benefit from an opening at the top of the structure to allow the hot air to escape and provide a path for air to circulate throughout the device” (App. Br. 5). The Examiner also contends that “Chin specifically teaches that the top panel can be removably attached. See Column 4, lines 19-21: ‘The top panel 14 can be attached to upper edges 24 by a number of ways, including sewing, tape or Velcro-type fasteners’” (Ans. 6). The Examiner notes that “[i]f the upper edges 24 of the sides of the structure are attached to the top panel with a Velcro-type fastener, the top panel is necessarily removable” (Ans. 6).

In view of these conflicting positions, we frame the obviousness issue before us as follows:

Would it have been obvious to an ordinary artisan at the time the invention was made to modify the structure of Chin to include a removable top panel as shown by Watson?

Findings of Fact

1. Chin teaches a “portable booth useful for providing a private, portable changing room at remote locations such as sidewalk sales, yard sales and the beach” (Chin, col. 1, ll. 5-7).

2. Chin teaches that the portable booth has “(i) a plurality of elongate, substantially vertical side panels **12**; (ii) a top panel **14**; (iii) a

bottom panel **16**[;] (iv) a first stiffener **18**; and (v) a second stiffener **20”** (Chin, col. 2, ll. 58-61). Chin shows that the top and bottom panels are in a circular, loop form (*see* Chin, fig. 1).

3. Chin teaches that as “shown in FIGS. **1-3**, each of the side panels **12** comprises an oval-shaped continuous band **28** covered by two pieces of thin, flexible material **30** sewn together around the continuous band **28”** (Chin, col. 3, ll. 1-5).

4. Chin teaches that “bottom panel **16** is also made of a durable, flexible material **30** such as nylon which is attached to the lower edges **26** of the side panels **12**, by sewing or some other method” (Chin, col. 4, ll. 26-29).

5. Chin teaches that “[p]referably, for increased privacy, the portable booth **10** includes the top panel **14** attached to the upper edges **24** of each of the side panels **12** to form a roof for the enclosure **27”** (Chin, col. 4, ll. 15-18).

6. Chin teaches that “top panel **14** is also made of a flexible, durable material such as nylon which is attached to the upper edges **24** of each of the side panels **12**. The top panel **14** can be attached to upper edges **24** by a number of ways, including sewing, tape or velcro-type fasteners” (Chin, col. 4, ll. 18-22).

7. Chin teaches that the booth may include “ventilation openings . . . so that the enclosure **27** does not become too hot and/or stuffy” (Chin, col. 4, ll. 8-12).

8. Watson teaches a booth “with a top opening affording ready admission of a person thereto, when the structure is collapsed, and which,

when vertically distended, forms a surrounding curtain or shield effectively secluding the figure of the person from view” (Watson, col. 1, ll. 14-19).

Discussion of 35 U.S.C. § 103(a) over Chin and Watson

We conclude that the Examiner has set forth a *prima facie* case that claim 1 would have been obvious to the ordinary artisan. Chin teaches a collapsible booth with bottom and top loops where there is material between the top and bottom loops attached to the periphery of the loops and a second fabric that covers the interior space of the bottom loop (FF 1-4, 6). Chin teaches a desire for ventilation (FF 7). Chin does not exemplify a booth with a top opening, but does indicate that sometimes a closed top is desired for privacy (FF 5). Watson teaches a booth with a top that is open (FF 8).

We agree with the Examiner that the ordinary artisan would have had a reason to use an open top in the Chin booth in order to allow superior ventilation (*see* FF 7, Ans. 5). In *KSR*, the Supreme Court indicated that “[w]hen a work is available in one field 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.” *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007). In the instant case, the use of an open top in the Chin booth would permit improved ventilation, which provides a specific reason to leave the top detached and is a predictable variation of the booth of Chin, as demonstrated by Watson (*see* FF 7-8).

Additionally, we agree with the Examiner regarding the need to accommodate various heights (Ans. 6). We are not persuaded by Appellant’s argument that “a person skilled in the art who reviews the

teachings in Chin would have no reason to remove the top panel 14 to further facilitate use by people having different heights” (App. Br. 9). In this argument, Appellant argues that Chin can accommodate different users by changing the size of side panels 12 (*see* App. Br. 9). However, this does not appreciate the real world context of the invention, in which a purchaser, such as family, does not buy different size side panels for each member, but rather buys a specific size device. The ordinary artisan would reasonably expect that a family purchasing a smaller booth of 36 inches (*see* Chin, col. 3, l. 33) might occasionally entertain someone who would not comfortably fit into the smaller booth and would have to be accommodated by removing the top panel 14.

We are not persuaded by Appellant’s argument that the “disclosure in Chin precludes the removal of the top panel 14” (App. Br. 9). While Chin evinces a preference for a closed top for privacy (FF 5), this does not teach away from an open top in situations where privacy is less of a concern, such as a child’s changing booth where a parent may wish to supervise the child or a booth with side panels of “ninety-six (96) inches” in height (*see* Chin, col. 3, l. 33). Further, it is clear that the top panel of Chin may be removed, as Chin indicates that “[p]referably, for increased privacy, the portable booth **10** includes the top panel **14** attached to the upper edges **24** of each of the side panels **12** to form a roof for the enclosure **27**” (Chin, col. 4, ll. 15-18). Chin’s use of the word “preferably”, indicates that a nonpreferred embodiment is where the top panel **14** is not present. Further, contrary to Appellant’s argument that the removability of stiffener **18** is simply to accommodate disassembly of the booth, and does not involve removal of the

top panel (App. Br. 9), Chin teaches that the top panel **14** may be attached by Velcro®, which clearly supports the removability of the top panel (*see FF 6*)

We also do not find Appellant's argument regarding the combination with Watson persuasive (*see App. Br. 10*). We think that Watson is simply relied upon to demonstrate that booths with open tops represent an alternative conformation that may be used (FF 8). We do not think that the obviousness case requires the use of the mechanism of Watson for entry into the booth, but simply recognizes that booths with open tops represent alternatives to booths with closed tops.

We affirm the rejection of claim 20 under 35 U.S.C. § 103(a). Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 21-22 as these claims were not argued separately.

CONCLUSION

In summary, we affirm the rejection of claim 20 under 35 U.S.C. § 103(a). Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 21-22 as these claims were not argued separately.

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)(2006).

AFFIRMED

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cdc

Raymond Sun
Law Offices of Raymond Sun
12420 Woodhall Way
Tustin CA 92782