

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

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Ex parte MATTHEW W. WEISMILLER et al.

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Appeal No. 2005-1471  
Application No. 10/028,833

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ON BRIEF

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Before FRANKFORT, NASE, and BAHR, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 38, 40 to 44 and 65 to 69. Claims 27, 29 to 37, 39, 45 to 47, 58 to 64 and 70, the only other claims pending in this application, have been allowed.

We REVERSE.

BACKGROUND

The appellants' invention relates to a hospital bed (title). A copy of the dependent claims under appeal is set forth in the appendix to the appellants' brief.

Claim 38, the only independent claim on appeal, reads as follows:

A bed comprising:  
a frame;  
a deck supported by the frame;  
a patient support surface supported by the deck;  
a siderail coupled to one of the frame and the deck, the siderail being configured to move between a raised position in which at least a portion of the siderail extends above the patient support surface and a lowered position in which the siderail is positioned below the patient support surface;  
a display screen coupled to the siderail, and  
a processor in communication with the display screen, the processor being configured to provide variable graphical information to the display screen.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Mitchell	4,612,679	Sep. 23, 1986
Marra, Jr. (Marra)	5,097,550	Mar. 24, 1992
Williams et al. (Williams)	5,542,138	Aug. 6, 1996

Claims 38 and 65 to 69 stand rejected under 35 U.S.C. § 103 as being unpatentable over Marra in view of Williams.

Claims 38, 40 to 44, 65, 68, and 69 stand rejected under 35 U.S.C. § 103 as being unpatentable over Mitchell in view of Williams.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (mailed September 3, 2003) and the answer (mailed May 17, 2004) for the examiner's complete reasoning in support of the rejections, and to the brief (filed February 6, 2004) and reply brief (filed July 20, 2004) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 38, 40 to 44 and 65 to 69 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

#### **The obviousness rejection based on Marra and Williams**

We will not sustain the rejection of claims 38 and 65 to 69 under 35 U.S.C. § 103 as being unpatentable over Marra in view of Williams.

Marra's invention has particular application to hospital beds and relates to an apparatus for covering the rails of same in a manner providing optimum safety, comfort and convenience for both the patient and the nurse or other attendant. Referring now to Figures 1-4, a hospital bed 10 having a wheeled bed frame 12 is illustrated. Hospital bed 10 additionally includes a pair of bed rails 14, 16 which are connected to the bed frame 12 by connector elements 18 which, as is conventional, allow movement of the bed rails relative to the bed frame from the vertical position illustrated to a lowered position. Each bed rail is in the form of a framework defining an opening 22 and

including a generally horizontally disposed top rail 24, a generally horizontally disposed bottom rail 26 spaced from the top rail, and a pair of end rails 28, 30 spaced from each other and interconnecting the top and bottom rails. The connector elements 18 extend between the bottom rail and the bed frame. Bed rail 14 includes two housings 32, 34 for accommodating equipment such as controls for adjusting the configuration of the bed or communications apparatus such as a telephone or intercom. Covers 40 and 42 are provided over the bed rails to afford protection for the patient by preventing he or she from engaging the hard surfaces of the bed rail which in some circumstances can cause injury.

Williams' invention relates generally to hospital bed controls, and more particularly to a bedside control module for hospital beds mounted on an articulating support. In the BACKGROUND OF THE INVENTION section of the patent, Williams teaches that:

Bedside control systems are commonly used in the health care industry to make various control functions accessible to patients. Bedside controllers are typically used for bed adjustment, nurse calls, and for control of appliances such as radio, television, telephone and lights. Examples of such controllers are pendant speaker systems and side rail controls. One example of a side rail control is shown in U.S. Pat. No. 4,680,790 to Packard et al.

One inherent problem with current side rail controls or pendant speaker systems is that confused or challenged patients have a great deal of difficulty locating and manipulating the controls. For example, pendant speaker systems are not mounted in a fixed location and can be lost in the bed clothes. In the case

of side rail controls, they are frequently mounted in locations which are not convenient or conducive to their use.

Another disadvantage of side-rail controls and pendant speaker systems is that they are generally accessible to the patient only when the patient is in the hospital bed. After surgery or other treatment, it is generally desirable to ambulate the patient as soon as is medically practicable. Studies show that ambulating patients as quickly as possible after surgical procedures decreases the patient's recovery time and also the overnight stays required. Patients are therefore encouraged to sit upright in a bedside chair in the patient's hospital room rather than remain confined in the hospital bed. Current pendant systems and side rail controllers are frequently inaccessible to the patient once the patient is out of the hospital bed.

Current side rail control systems are also inaccessible to the visiting family member who might be staying with the patient during recovery. The existing T.V. controls and other environmental controls are not accessible to the visitor when they are fixed to the bed side rail.

In the SUMMARY OF THE INVENTION section of the patent, Williams teaches that:

The bedside control system of the present invention is designed to provide all of the control functions of the patient environment in a convenient location which is readily accessible to a patient confined to a hospital bed. A control panel is mounted on an articulating arm that allows freedom of movement in all planes. The articulating arm structure provides an overhead support which makes it easier for the challenged or impaired patient to locate and use the control panel. The articulating arm structure also allows the use of the bedside control by the patient even when the patient is seated in a bedside chair. The articulating arm structure mounts to either the right or left side of the bed frame. A connector interfaces with the existing control system of the bed.

Referring now to the drawings of Williams, Figure 1 shows a hospital bed 10 including a support frame 12, side rails 14, and adjustable head and knee sections 16 and 18 respectively. Hospital beds 10 of the type shown in the drawings are well known to those skilled in the art and typically include electrical control means for independently adjusting the head and knee sections 16 and 18. The bedside control system of Williams' invention comprises a control panel 40 supported above the hospital bed by an articulating arm structure 20 that allows freedom of movement in all planes. The articulating arm structure 20 is secured to the bed frame by a mounting bracket. The articulating arm structure 20 suspends the control panel 40 in an overhead position relative to the hospital bed 10. The articulating arm structure 20 is moveable between a first position in which the articulating arm structure 20 extends over the hospital bed 10, and a second position in which the articulating arm structure 20 extends outwardly to one side of the bed 10. Thus, the articulating arm structure 20 can be used as an overhead support when the patient is confined to the hospital bed, or as a bedside support when the patient is sitting in a bedside chair.

Referring now to Figure 2 of Williams, the control panel 40 includes a housing 42 having integral handles 44 on the sides of the housing 42. The handles 44 allow easy manipulation of the control panel 40 by physically-challenged patients. At the top of the housing 42, a hand-set receiving area 46 is formed for docking a conventional

telephone handset 48. An integral speaker 50 is mounted within the handset receiving area 46. A digital display 71 is also included for time and date display. A control panel 52 is mounted on the front of the control panel 40 below the handset receiving area 46. The control panel 52 includes a plurality of membrane switches which are actuated by an associated push button. In the illustrated embodiment, the push buttons include bed controls 54, 56, and 58, T.V. controls 60, a "nurse call" button 66, lighting controls 62, 64 and auxiliary controls 68. The bed controls include head control buttons 54a and 54b for adjusting the head section 16 of the bed 12, knee control buttons 56a and 56b for controlling the knee section 18 of the bed 12, and mattress adjustment buttons 58a and 58b for adjusting the firmness of the mattress in hospital beds equipped with this function.

Figure 3 of Williams shows the back of the control panel 40. A display panel 76 is connected to the housing 42 by a hinge in a manner similar to the display of a lap-top computer. The display panel 76 is movable between a folded position against the back side of the housing 42 unit and an upright position. The display panel 76 includes a multi-line display 70. The multi-line 70 may be used to display video as well as to provide an interface with the control panel 40. An input device, such as a keyboard 72 and trackball 74, is disposed on the housing 42 and is covered by the display panel 76

when the display panel 76 is in a folded position. The keyboard 72 and trackball 74 enable the user to input commands and data to the control panel 40.

Figure 4 of Williams depicts a block diagram of the control panel circuitry. The heart of the control panel 40 is a microprocessor 82 having internal random access memory (RAM) and read-only memory (ROM). The microprocessor 82 is connected via a communications buss 84 to an interface control module 120 (see Figure 5).

In this rejection (final rejection, p. 3), the examiner determined that it would have been obvious to the skilled artisan to have upgraded the controls of the Marra bed side rail structure with a microprocessor control that includes a display screen that provides variable graphical information as taught by Williams. The motivation would have been to provide the benefits of a programmable control unit for the bed, in which the control unit is essentially a microcomputer that is easily operated and controlled by a user.

We agree with the appellants' argument (brief, pp. 4-6; reply brief, pp. 2-3) that the applied prior art does not suggest the claimed subject matter. In our view, the teachings of Williams would have suggested replacing the bed side rail controls of Marra with an articulated control panel that includes a display screen as taught by Williams. However, such a modification of Marra does not result in the subject matter of

claim 38. Specifically, the applied prior art does not suggest a display screen coupled to a movable siderail of a bed and a processor in communication with the display screen, the processor being configured to provide variable graphical information to the display screen.

In our view, the only suggestion for modifying Marra in the manner proposed by the examiner to arrive at the claimed subject matter stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

For the reasons set forth above, the decision of the examiner to reject claim 38 and claims 65 to 69 dependent thereon, under 35 U.S.C. § 103 as being unpatentable over Marra in view of Williams is reversed.

#### **The obviousness rejection based on Mitchell and Williams**

We will not sustain the rejection of claims 38, 40 to 44, 65, 68, and 69 under 35 U.S.C. § 103 as being unpatentable over Mitchell in view of Williams.

Mitchell's invention relates in general to beds, such as hospital and nursing home beds, and more particularly to side guards for such beds. Figure 1 is a perspective view of a hospital bed provided with side guard assemblies constructed in accordance with and embodying Mitchell's invention, the side guard assembly on the right side of the bed being in its elevated position and extended configuration and the side guard assembly on the left side of the bed being in its depressed position and retracted configuration. The side guard moves between the elevated and depressed positions on parallel swing arms that are quite short and extend from a base mounted on the back section of the bed. The side guard further has an upper section which pivots outwardly and downwardly to a retracted position to substantially reduce the height of the side guard. When the side guard is in its depressed position with its upper section folded to the retracted position, the side guard lies entirely below the mattress supporting surface of the bed back section and therefore does not interfere with bed making. Also the upper section may carry a bed control unit, or a telephone, or controls for other electrically operated devices, and when in its extended position, these devices are presented inwardly toward the occupant of the bed, but when the upper section is in its retracted position, they are presented outwardly where they are conveniently accessible to one sitting or standing beside the bed.

In this rejection (final rejection, p. 5), the examiner determined that it would have been obvious to the skilled artisan to have upgraded the controls of the Mitchell bed side rail structure with a microprocessor control that includes a display screen that provides variable graphical information as taught by Williams. The motivation would have been to provide the benefits of a programmable control unit for the bed, in which the control unit is essentially a microcomputer that is easily operated and controlled by a user.

We agree with the appellants' argument (brief, pp. 8-9; reply brief, p. 7) that the applied prior art does not suggest the claimed subject matter. In our view, the teachings of Williams would have suggested replacing the bed side rail controls of Mitchell with an articulated control panel that includes a display screen as taught by Williams. However, such a modification of Mitchell does not result in the subject matter of claim 38. Specifically, the applied prior art does not suggest a display screen coupled to a movable siderail of a bed and a processor in communication with the display screen, the processor being configured to provide variable graphical information to the display screen. In our view, the only suggestion for modifying Mitchell in the manner proposed by the examiner to arrive at the claimed subject matter stems from impermissible hindsight knowledge derived from the appellants' own disclosure.

For the reasons set forth above, the decision of the examiner to reject claim 38 and claims 40 to 44, 65, 68, and 69 dependent thereon, under 35 U.S.C. § 103 as being unpatentable over Marra in view of Williams is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 38, 40 to 44 and 65 to 69 under 35 U.S.C. § 103 is reversed.

REVERSED

CHARLES E. FRANKFORT  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

JENNIFER D. BAHR  
Administrative Patent Judge

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