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## United States Court of Appeals for the Federal Circuit

01-1413

HILL-ROM, INC. and HILL-ROM SERVICES, INC.,

Plaintiffs-Appellees,

v.

OHMEDA MEDICAL and DATEX-OHMEDA, INC.,

Defendants-Appellants.

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DECIDED: April 29, 2002

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Before MICHEL, BRYSON, and GAJARSA, Circuit Judges.

BRYSON, Circuit Judge.

Ohmeda Medical and Datex-Ohmeda, Inc., ("Ohmeda") appeal from the order of the United States District Court for the Southern District of Indiana granting the motion of Hill-Rom, Inc., and Hill-Rom Services, Inc., ("Hill-Rom") for a preliminary injunction in this patent infringement action. We affirm.

I

Maintaining a constant body temperature is critical to the health of underweight or premature infants. To that end, neonatal care units have traditionally used two types of infant warming devices, incubators and radiant warmers. Incubators circulate heated air through an enclosed compartment, using convective heat transfer to maintain the infant's body temperature. Caregivers have access to the infant either through hand ports or through one or more entry doors. Radiant warmers, on the other hand, are not enclosed. As a result, they provide greater

access to the infant by caregivers. Radiant warmers typically consist of infrared heaters mounted over a support on which the infant rests. They control the infant's body temperature through the use of radiative energy that is emitted by the heaters and absorbed by the infant's skin.

Both types of warming devices have shortcomings. Incubators that provide access to the infant through hand ports or small entry doors have the disadvantages of limited access to the infant and limited mobility for the caregiver. Incubators with larger entry doors have the disadvantage that opening the entry door causes a rapid temperature drop inside the incubator. Thus, access to an infant in such an incubator is limited because it is undesirable to open the entry door frequently.

Radiant warmers have their own drawbacks. The form of heat transfer employed in radiant warmers causes infants to experience more fluid loss than in incubators, which typically use humidification systems. Also, because warmers are not enclosed, they expose infants to ambient nursery conditions such as noise and unfiltered air.

Hill-Rom is the owner of U.S. Patent No. 5,453,077 ("the '077 patent"), which is directed to a warming device that functions both as an incubator and as a radiant warmer. Claim 17 of the '077 patent provides as follows:

17. A combination infant radiant warmer and incubator thermal support device comprising:

an infant support;

a canopy mounted over said support and adapted to be raised and lowered relative to said support, said canopy when lowered to a lowermost position substantially enclosing said support;

an infrared heater mounted over said support and adapted to be raised and lowered relative to said support along with said canopy; and

at least one fan and at least one heater providing heated air from said infant support traveling over an infant on said support;

whereby said device is operable to function as a radiant warmer with said canopy raised above said support and said heater activated, and is operable to function as an incubator with said canopy lowered onto said support and said fan and heater providing a heated air curtain activated.

By combining certain functions of radiant warmers and conventional incubators, the apparatus of claim 17 seeks to achieve the advantages of both types of prior art devices while avoiding the disadvantages of each.

On September 27, 2000, Hill-Rom brought suit against Ohmeda, alleging that Ohmeda's accused device, known as the OmniBed, infringes claim 17 of the '077 patent. Ohmeda counterclaimed, asserting that the '077 patent is invalid and that the OmniBed does not infringe. Hill-Rom moved for a preliminary injunction, which was granted on May 29, 2001.

In its opinion accompanying the order granting the preliminary injunction, the district court found that the OmniBed functions as an incubator when its canopy is lowered and as a radiant warmer when the canopy is raised. When operating as an incubator, the court found, the OmniBed directs heated air from the support upward through a passage formed by the inner and outer walls of the access doors of the incubator compartment. The evidence before the court showed that as the heated air rises and exits from the passage within the double-walled doors, it follows the shape of the sloped canopy toward the top of the compartment. The court found that the heated air then travels over the infant. Based on those findings, the court concluded that Hill-Rom had shown a likelihood of success on its infringement claim. In addition, the court held that Hill-Rom was threatened with irreparable harm, that the balance of hardships tipped in favor of Hill-Rom, and that the public interest favored granting preliminary injunctive relief. Ohmeda appeals from the district court's order.

## II

The grant of a preliminary injunction is reviewed for an abuse of discretion. Hybritech Inc. v. Abbott Labs., 849 F.2d 1446, 1449, 7 USPQ2d 1191, 1194 (Fed. Cir. 1988). Ohmeda argues that the district court abused its discretion in this case because the preliminary injunction was based on erroneous legal conclusions and factual findings.

Ohmeda argues that the district court's finding that Hill-Rom would likely succeed on the merits of its case was flawed because of two claim construction errors. The disputed portion of claim 17 reads as follows (emphasis added):

at least one fan and at least one heater providing heated air from said infant support traveling over an infant on said support;

whereby said device . . . is operable to function as an incubator with said canopy lowered onto said support and said fan and heater providing a heated air curtain activated.

Ohmeda's first contention is that the district court should have interpreted the term "heated air," as used in claim 17, to mean the same thing as "heated air curtain," a phrase that is used later in the same claim. Ohmeda admits that the terms "heated air" and "heated air curtain" ordinarily have different definitions, but it contends that in the '077 patent the term "heated air" has the same meaning that the district court gave to the term "heated air curtain"—an air flow that protects the infant from ambient conditions.

Looking to the language of claim 17, Ohmeda contends that the "heated air curtain" provided by "said fan and heater" is necessarily the same as the "heated air" previously referred to as being provided by the "at least one fan and at least one heater." While the phrase "said fan and heater" in claim 17 finds its antecedent basis in the phrase "at least one fan and at least one heater," the fact that the same "fan and heater" provide both "heated air" and a "heated air curtain" does not mean that the latter two terms are simply two different ways of referring to the same airflow. On the contrary, the use of the indefinite article "a" and the phrase "heated air curtain," which was not previously used in the claim, suggests that that the two terms are not the same. Moreover, the specification does not support Ohmeda's argument that "heated air" and "heated air curtain" are synonymous, because on at least one occasion it uses the term "heated air" to refer to air that is not in the form of a curtain. See '077 patent, col. 6, ll. 51-53 ("Heated air from the air curtains 21 and 22 will be drawn into opening 141 and will pass

downwardly through passages 140, 143, and into return or intake 63.").

Significantly, most of the independent claims of the '077 patent other than claim 17 recite a "heated curtain of air" traveling over the infant. Claim 17 is the only claim that varies from that formula and recites "heated air" traveling over the infant. The difference in language suggests a difference in meaning; otherwise, there would be no reason for the patentee to have departed from the formulation consistently used in the other claims.

Ohmeda argues that all of the embodiments described in the written description portion of the patent use heated air curtains to warm the infant and that any assertion that claim 17 uses a different system—heated air rather than a heated air curtain—fails because such a system lacks support in the specification. In light of the fact that most of the claims recite a "heated curtain of air," it is not surprising that the embodiments described in the patent employ heated air curtains. Nonetheless, the absence of any discussion of an embodiment using heated air rather than a heated air curtain is not fatal. The original claims of the application are part of the specification, Hyatt v. Boone, 146 F.3d 1348, 1352, 47 USPQ2d 1128, 1130 (Fed. Cir. 1998), and from the outset claim 17 recited the use of heated air to warm the infant. Accordingly, claim 17 itself provided a sufficient written description of the claimed invention.

Notwithstanding the difference in the language used in claim 17 and in the other independent claims, Ohmeda points to an amendment made during prosecution to support its argument that "heated air" means the same thing as "heated air curtain." As originally filed, claim 5 referred to a "heated curtain of air traveling over an infant," while claim 17 referred to "heated air traveling over an infant." The examiner rejected both claims for anticipation and obviousness. In response, Hill-Rom amended both claims by adding the language "from said infant support" to each. In explaining the amendment, Hill-Rom commented:

In both the anticipation and obviousness rejections, the Examiner stated that the teaching of a heated air curtain traveling over the infant was supplied from . . . [the purportedly anticipating reference]. However, an examination of . . . [that reference] shows that the heated curtain of air is directed from the canopy of the device, and not from the infant support as is now more clearly recited in claims 5 and 17. Thus, it is submitted that the Examiner's § 102(b) rejection has been overcome, . . . as there is no teaching or suggestion in the art for providing such a combination infant radiant warmer and incubator thermal support device as is now recited in claims 5 and 17 wherein the heated curtain of air which travels over the infant on the infant support is from the infant support.

According to Ohmeda, Hill-Rom's reference to both claims 5 and 17 as having a "heated curtain of air" constitutes a concession that the term "heated air" in claim 17 refers to a "heated air curtain."

An examination of the context in which Hill-Rom's statement was made undercuts Ohmeda's contention that "heated air" was meant to be equivalent to "heated curtain of air." The examiner rejected claims 5 and 17, as originally filed, in view of a reference allegedly teaching a "heated air curtain." In so doing, the examiner characterized the amended portions of claims 5 and 17 as having a "heated air curtain" when only the amended portion of claim 5 had such a reference. Despite that characterization, Hill-Rom nevertheless began its remarks

accompanying the amendment by distinguishing between the "heated curtain of air" of claim 5 and the "heated air" of claim 17. The portion of Hill-Rom's remarks immediately preceding the passage quoted by Ohmeda is instructive:

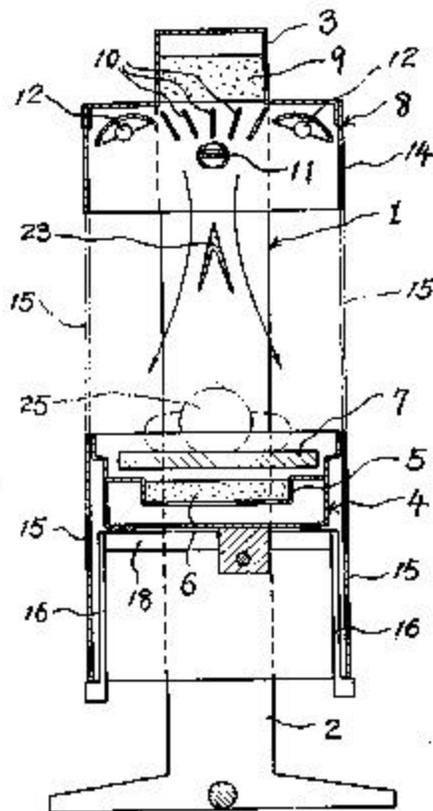
The Examiner rejected claims 5 and 17 under 35 U.S.C. § 102(b) as being anticipated . . . . In response applicants have amended claims 5 and 17 to clearly define over the cited references. In particular, applicants have amended claim 5 to recite means for providing a heated curtain of air "from said infant support," and have amended claim 17 to recite at least one fan and at least one heater providing heated air "from said infant support" traveling over an infant on the support.

The statement on which Ohmeda relies on as proof that Hill-Rom regarded "heated air" as equivalent to "heated curtain of air"—Hill-Rom's reference to claim 17 as having a "heated curtain of air"—appears to be a simple error, perhaps brought on by the examiner's initial reference to claim 17 as having a "heated air curtain." That error does not constitute a clear disclaimer of subject matter, particularly in view of the plain language of the claim and a contrary statement in the same prosecution document. See *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1348, 58 USPQ2d 1737, 1741-42 (Fed. Cir. 2001). Accordingly, because neither the written description nor prosecution history contradicts the ordinary meaning of "heated air," the district court did not err in construing that term.

Ohmeda argues that the district court made a second claim construction error that undercuts the court's finding on likelihood of success on the merits. Specifically, Ohmeda contends that the district court did not consider the ramifications of Hill-Rom's addition of the phrase "from said infant support" to claim 17 during prosecution. In Ohmeda's view, Hill-Rom gave up a construction of claim 17 in which heated air strikes the canopy before "traveling over" the infant. Ohmeda therefore asserts that because the OmniBed operates in that manner, it does not infringe claim 17.

The relevant portion of original claim 17 recited "at least one fan and at least one heater providing heated air traveling over an infant on said support." The examiner rejected that claim under 35 U.S.C. § 102(b), citing a 1974 Japanese patent. Because the version of the Japanese patent that the examiner cited was not translated, the rejection was based solely on one of the drawings in the patent. The examiner stated: "Japanese '184 discloses a support (7), a canopy (14) that is raised or lowered and has a warming heater in the support and a means for providing a heated air curtain traveling over the subject on the support (see Figure 3)." The figure in issue is shown below:

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In response to the rejection, Hill-Rom amended claim 17 to recite "at least one fan and at least one heater providing heated air from said infant support traveling over an infant on said support." Hill-Rom explained the amendment as follows: "However, an examination of Fig. 3 shows that the heated curtain of air is directed from the canopy of the device, and not from the infant support as is now more clearly recited in claims 5 and 17." Ohmeda and Hill-Rom have different views as to the meaning of that statement.

Ohmeda argues that the statement has two important implications. First, Ohmeda contends that the statement constitutes an agreement with the examiner's assertion that the "warming heater" disclosed by the Japanese reference was located in the support (numeral 7 in Fig. 3). Second, Ohmeda contends that the statement reflects an understanding by Hill-Rom that the Japanese device operated by generating heated air within the support, directing it upwards toward the canopy, and deflecting it over the infant. Ohmeda thus argues that Hill-Rom was seeking to distinguish claim 17 over the cited reference by specifying that the support itself, rather than some other structure (e.g., the canopy), gave the airflow its ultimate direction over the infant. In other words, Ohmeda argues that "directed from" in Hill-Rom's remarks refers to the structure that deflects heated air over the infant rather than the point of origin of the heated air. Ohmeda thus asserts that Hill-Rom surrendered embodiments of claim 17 in which heated air originates from the support but is deflected toward the infant by another part of the device, and that the OmniBed is therefore not within the scope of claim 17.

Hill-Rom takes a different view of the prosecution history. Hill-Rom contends that in making the statement that the "heated curtain of air is directed from the canopy of the device [pictured in the Japanese patent]," it was disagreeing with the examiner's contention that the heat source in the device depicted in the Japanese reference was located in the support. Rather, Hill-Rom asserts that it was pointing out that the "heated curtain of air" in the device shown in the reference was "directed from," that is, it originated from, the canopy of the device. Accordingly, Hill-Rom argues that when it amended claim 17 by adding the phrase "from said infant support," it was specifying that the heated air originated from the support as opposed to some other location such as the canopy. Therefore, Hill-Rom contends, it did not surrender embodiments of its invention in which heated air is directed upward from the support, strikes the canopy of the incubator, and is deflected over the infant.

We agree with Hill-Rom's view of the prosecution history. Hill-Rom characterized the prior art device as having a heated air flow "directed from the canopy of the device," unlike the device claimed in amended claim 17, in which the heated air is recited as being provided "from said infant support." Ohmeda's argument that this statement refers to the structure that ultimately directs the heated air over the infant in making the amendment is not convincing. Figure 3 of the Japanese reference gives no indication that an airflow is generated in the support, rises upward toward the canopy, and is deflected over the infant, as Ohmeda claims. Instead, Figure 3 appears to depict a downward flow of air originating in the canopy of the device. Accordingly, Hill-Rom's amendment is properly viewed as specifying the origin of the heated airflow.

Because the district court did not commit legal error in construing the terms "heated air" and "from said infant support," it did not clearly err in finding that Hill-Rom would likely succeed on the merits of its infringement claim. Ohmeda also argues that the district court erred in evaluating the balance of hardships between the parties and the harm to the public interest. We have considered Ohmeda's arguments on those points but cannot conclude that the district court abused its discretion in weighing those factors. We therefore affirm the district court's order granting the preliminary injunction.