United States District Court,
N.D. Illinois, Eastern Division.

INTERTECH RESOURCES INC,
Plaintiff.
v.
VITAL SIGNS, INC,
Defendant.

June 13, 1997.

MEMORANDUM OPINION AND ORDER

LEINENWEBER**, District Judge.**

A. ***INFRINGEMENT***

Intertech owns the patent rights to a resuscitator, U.S. Patent No. 4,744,941 (" "1 Patent"), which it claims is infringed by certain Vital Sign resuscitator products. By this suit it seeks to enforce these rights. Vital Signs has moved for partial summary judgment of non-infringement for its product numbers 7200, 7300, and 7400 (which are basically the same product differentiated merely by size and thus called collectively "7200") and its product number 7100.

The "1 patent describes a resuscitator with "a squeeze bag having a gas inlet and a gas outlet" with a specifically configured valve assembly joined to the bag over the gas outlet. The valve assembly is contained in a housing that includes the squeeze bag inlet opening, a patient port and an exhalation port. Therefore the preferred embodiment shows the device for forcing air or other liquid such as oxygen attached directly to the valve housing.

On the other hand the accused devices are configured somewhat differently. The 7200 has a chamber between the gas supply and the valve assembly that does not in and of itself do anything other than provide a means of extension and attachment to the gas supply and the pressure supply. Gas or liquid is admitted through a port separate from the port to which the squeeze bag is attached and from which pressure is obtained. The 7100 has a flexible tube attached to the valve assembly to which is attached a mouth piece through which a person blows air.

Each of these devices operates on the principle of using air pressure and vacuum to move a diaphragm alternatively to open and then to close openings (or ports) so as to force air or oxygen to go to the patient on inhalation and to prevent it from going on exhalation.

Vital Signs limits its argument to claim number 4 of the "1 patent, and contends that the limitation contained in paragraph 4a is not present in any of the above described products.

Paragraph (a) of Claim 4 reads as follows:

4. A resuscitator comprising:

(a) means for supplying gas having a hollow interior and first and second openings at opposite ends thereof.

Vital Signs argues that its means for supplying gas does not meet this limitation since in neither of its products does the means for supplying gas have "first and second openings at opposite ends." It argues that paragraph 4(a) sets forth a "means plus function" limitation which is a shortcut allowed by 35 U.S.C. s. 112, para. 6. This permits a patentee to extend his claim to cover what is described in the specifications "and equivalents thereof." Since a resuscitator's purpose is to force pressurized air or other fluid such as oxygen into a patient's lungs to induce respiration, the function must be the supply of pressurized air or other fluid. Since the preferred means as disclosed in the specifications is a squeeze bag, the means referred to in paragraph 4(a) must be the a squeeze bag or its equivalent. Since the corresponding structure on the Vital Sign respirators do not themselves provide any pressurization, the limitation of paragraph 4(a) is not found in its respirators so that they cannot infringe patent "1.

Intertech on the other hand contends that each of the Vital Sign products has a corresponding structure to that described in paragraph 4(a) of an equivalent structure. Its first argument is that the limitation of paragraph 4(a) is not "for forcing air or other fluid into a patient for forced respiration" as claimed by defendant. It instead, according to Intertech, is merely a "hollow member" which serves merely as a means to supply gas to the valve assembly presumably much the same as a pipe is said to supply gas. The preferred embodiment does show this to be a compressible, squeezable member which has the additional function of supplying the pressure. In other words Intertech claims that the supply of gas and the supply of pressure are two different functions and Claim 4 does not claim the limitation of supplying pressure.

Both sides agree that resolution of this issue is a matter of law for the court to decide. Markman v. Westview Instruments, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). 35 U.S.'C. s. 112, para. 6 provides:

an element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

In construing means plus function a number of factors are considered. These include the specific claim language, the patent specification, the prosecution history, other claims in the patent, and expert testimony. Palumbo v. Don-Joy Co., 762 F.2d 969, 975 (Fed.Cir.1985). To satisfy a means-plus-function claim element literally, an accused device must perform the identical function claimed for the means element and perform the function using the structure disclosed in the specification or an equivalent structure. Intel Corp. v. U.S. Intern. Trade Comm., 946 F.2d 821, 841 (Fed.Cir.1991).

With these principles in mind we must look at the evidence that the parties have submitted. The expert testimony is split. Vital Sign's expert, Richard Hoenig, says that in none of its devices does the chamber identified by Intertech as corresponding to what is described in paragraph 4(a) supply gas or pressure. Instead its products have a "rigid tube-like structure" which is part of the valve assembly and is not compressible, squeezable or depressible like a squeeze bag. If oxygen is permitted to flow into the structure

it would not resuscitate because there would be insufficient pressure to inflate the lungs. On the other hand Intertech's expert, Thomas Barnes, divides the functions of supply of gas from that of supplying the force. He stated that, for example, if the port of the chamber leading to the mask is closed no gas can get to the mask which means that it clearly operates as a gas supply.

In the opinion of the court, Vital Signs has the best of this argument. None of the devices supplies gas in the commonly-accepted sense of supply such as to supply gas to fill helium balloons. In the court's opinion this is a more reasonable interpretation than the gas pipe analogy. In other words one normally thinks of the gas tank as the supply of gas. In fact, the description of the preferred embodiment shows a tube entering the remote end of the squeeze bag in order to supply oxygen or other gas and is referred to as "a gas inlet opening." On the Intertech device the gas tank is likewise connected on the remote side of the squeeze bag and is not a part of the device. On the 7200 device of Vital Signs, the gas tank is at a similar port of the chamber remote from the valve assembly. The squeeze bag as we have seen is attached at a lateral port of the chamber.

Since the limitations refers to a "means for supplying gas" then under the common accepted meaning the limitation must refer to the means for supplying the gas under pressure rather than simply the supply of gas. Thus the Vital Signs devices do not have this limitation because the means for supplying the gas under pressure is located lateral to the chamber rather than being the chamber (squeeze bag) itself. The gas does not enter the squeeze bag on the accused devices while it does according to the limitations of the "1 patent. Thus the court finds that the Vital Sign devices do not literally infringe the Intertech "1 patent.

Having decided that there is no literal infringement the court must next decide whether the Vital Sign devices infringe the "1 patent under the doctrine of equivalents. This doctrine requires the trier of fact to determine the "substantiality of the differences between the claimed and accused products according to an objective standard." Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d 1512, 1518 (Fed.Cir.1995). The normal way of assessing equivalency is the familiar "function, way, and result" announced in Graver Tank v. Linde Air Products Co., 339 U.S. 605, 70 S.Ct. 854, 94 L.Ed. 1097 (1950), particularly where the devices are characterized by relatively simple mechanical technology. *Hilton Davis,* at 1518. However the trier of facts is entitled to weigh any other evidence that is relevant to the substantiality of the differences, or the lack thereof. The vantage point is one of ordinary skill in the relevant art. *Hilton Davis* at 1519. It is an issue of fact to be decided by the trier of fact. *Hilton Davis* at 1522.

These devices are of relatively simple technology. The principle of using vacuum and pressure to move a diaphragm to open and close valves is quite elementary even to one short of ordinary skill in the relevant art.

It is apparent that the devices are intended to function so as to resuscitate, that is "to revive from ... unconsciousness." *Webster's Third New International Dictionary,* Merriam-Webster Inc. (1981), p.1937. The ways of doing so are, in each case, to deliver air or oxygen forcefully to the patient's mouth through the use of a squeeze bag. The result is the receipt by the patient of the forced air or oxygen which is intended to force the onset of respiration. It is hard to see how there is any substantial difference between Intertech's "1 patient and the Vital Sign alleged infringing devices based on the relative locations of the squeeze bags. In fact Vital Signs does not attempt to assert any difference as a result of the location of the squeeze bag on a lateral port. There may in fact be differences which would be substantial but so far the record does not disclose any. Therefore, summary judgment in favor of Vital Signs is precluded. Accordingly, the motion for summary judgment on infringement is denied.

B. VALIDITY

Vital Signs has also moved the court for summary judgment under 35 U.S.C. s. 102(b) as fully anticipated under the prior art. This provision provides that a person shall not be entitled to a patent if the invention was "in public use or on sale" more than one year prior to the date the patent in suit was applied for.

The invention alleged to have been in use more than one year prior to Intertech's application for the "1 patent is the Michigan Instruments Life Aid(R) ("Thumper") Model 1004 resuscitator. It is, according to Vital Signs' Local Rule 12(m) statement, alleged to have been in use and on sale "prior to December 10, 1985."

The date of application for the "1 patent is alleged to be December 11, 1986. However, according to Intertech's 12(n) statement, the effective filing date of the "1 patent is May 4, 1983 providing a use or sale date of May 4, 1982. Thus, if this is true, Vital Signs has not supplied any evidence that the Thumper model, the alleged prior art, was in use or on sale prior to May 4, 1987.

35 U.S.C. s. 120 provides:

" s. 120 Benefit of earlier filing date in the United States

An application for patent for an invention disclosed ... in an application previously filed in the United States ... shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the ... abandonment of ... the first application or ... an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application."

The "1 patent discloses the following information:

"Filed: Dec. 11, 1986.

Related U.S. application.

Data Continuation of Ser. No. 766,673, Aug. 16, 1985, abandoned, which is continuation of Ser. No. 491,572, May 4, 1983, abandoned."

Intertech contends, without contradiction from Vital Signs, that "the disclosure of the invention in each succeeding application was the same as the disclosure in each preceding application; each succeeding application was filed before the abandonment of each preceding application, and each succeeding application was amended to refer to the preceding applications." Thus, all requirements of s. 120 appear to have been met. There being no evidence submitted of prior sale or use of the "1 invention, motion for summary judgment under s. 102(b) is denied.

CONCLUSION

In conclusion, defendant's motions for pretrial summary judgment under 35 U.S.C. s. 102 and for partial summry judgment of non-infringement are denied.

IT IS SO ORDERED.

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