Intellectual Property Office

BL O/574/16

06 December 2016

PATENTS ACT 1977

APPLICANT	Omega Holdings Limited
ISSUE	Whether Patent application GB 1203632.3 complies with Section 1(1)(b)
HEARING OFFICER	Mrs S E Chalmers

DECISION

1 Patent application GB 1203632.3 entitled "DRINKING AID" was filed on 01 March 2012 and relates to a drinking aid to remind a user to take a drink. The application was published on 04 September 2013 as GB2499829 A.

2 Despite a number of rounds of amendment and argument, the examiner and the applicant were unable to agree that the claims involved an inventive step as required by Section 1(1)(b) of the Patents Act 1977. The applicant requested to be heard in the matter. This took place by videolink on 3 November 2016 and was attended by the applicant's attorney Mr T.L. Johnson. Mr Tony Walbeoff (examiner) and Mr Philip Osman (assistant) were also present.

The Invention

3 The invention comprises a drinking aid to remind a user to take a drink. This takes the form of a receptacle (in practice a cup) having a lid and a sensor for measuring a state of a beverage within the container (eg a level) and a timer to cause an alert in the event that the beverage state (level) hasn't altered for a pre-defined period of time. The sensor is mounted on the receptacle and, in embodiments, another sensor such as a sonar device may be mounted in the lid. The drinking aid is also equipped to communicate with a remote monitor in order to, for instance, provide an historical record.

4 The latest claim set was filed on 19 August 2016 and comprises a single independent claim. Claim 1 is reproduced below:

> *A drinking aid system for monitoring a drinking history of a user, comprising a receptacle for holding a beverage, a sensor for distinguishing between a first state and a second state of the beverage within the receptacle, the receptacle comprising a lid and the sensor being positioned on the receptacle, a timer for timing a predetermined period, a processor for processing signals from the*

sensor and the timer, and alerting means for generating an alert, the processor being arranged to cause an alert to be generated by the alerting means to alert a user to take a drink in the event that the sensed first state has not changed to the second state for more than the predetermined time, the system further comprising communication means for communicating the drinking history of a user to a monitor remote from the receptacle.

5 Further details of the invention are defined in claims 2-12.

The law

6 Section 1 of the Patents Act 1977 requires that (emphasis added):

> *"1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –*
>
> *(a) ….*
>
> *(b) it involves an inventive step..."*

7 Section 2 makes it clear that what is new is not limited to information from the UK or authored by people other than the applicant when it says:

> *"2(1) An invention shall be taken to be new if it does not form part of the state of the art."*
>
> *"2(2) The state of the art in the case of an invention shall be taken to compromise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any way."*

8 Section 3 of the Act requires that:

> *"**An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art**, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above)."*

9 Whether or not an invention defined by the claims involves an inventive step is assessed using the four-step test first formulated by the Court of Appeal in *Windsurfing*[1] and restated by the court in *Pozzoli*[2]:

> *(1)(a) Identify the notional "person skilled in the art"*
>
> *(1)(b) Identify the relevant common general knowledge of that person;*

[1] *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd* [1985] RPC 59
[2] *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;

(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

Step 1: Identify the person skilled in the art and the common general knowledge of that person.

10 Mr Johnson, in his submissions suggested that the skilled person was in fact a team comprising person 'X' with medical skills such as a carer, nurse or doctor who had expertise in the requirements for patient hydration and had experience of drinking aids; and person 'Y' was a designer of drinking aids who had the needs of the carer and the patient in mind whilst also having knowledge of means for communicating the drinking history of a patient to a remote monitor. 'X' and 'Y' would be different people, 'X' knowing of practical life in say a hospital ward, and 'Y' having detailed knowledge of high tech communication systems.

11 I agree the person skilled in the art is a team whose common general knowledge is as identified by Mr Johnson but I would define that team slightly differently. In my view, the skilled team is made up of someone who is engaged in the design of equipment for encouraging and monitoring the drinking habits of the elderly or vulnerable people in an institutional or home environment. That person would have knowledge of the integration of the technologies into a beverage receptacle required to remind an elderly person to drink. Those technologies would include, but were not limited to, means for determining if a drink had been taken and timing device to prompt a user to take a drink. The other member of the team would be someone versed in the use of telecommunications for the collection of data and remote monitoring and who would be aware of its use in telemedicine to monitor the wellbeing of the elderly and vulnerable.

Step 2: Identify or construe the inventive concept

12 In the hearing, Mr Johnson took the view that the invention is defined by claim 1. This is undoubtedly legally correct, but a summary is nevertheless useful in considering the question of inventive step. I construe claim 1 as defining a drinking aid which comprises a container comprising a lid, a sensor positioned on the receptacle for detecting the state of a beverage contained therein, a system for alerting a user if the state of the beverage doesn't change over a predetermined time period, and a communications system to allow data corresponding to the user's drinking history to be transmitted to a remote location.

Step 3: Identify the differences between the inventive concept and the matter cited as state of the art.

13 The examiner cited three prior art patent applications as showing similar devices. These are:

WO 2011/004319 A1	(KONINKL PHILIPS ELECTRONICS)
US 2011/0149693 A1	(LIAO)
US 2010/0163567 A1	(CHIANG et al)

These three documents show prior art drinking aids in which all the features of claim 1 are present save for the communicating means for communicating the drinking history of a user to a monitor remote from the receptacle. Mr Johnson accepted these documents represented the state of the art and I agree.

Step 4: Determine whether when viewed without knowledge of the invention as claimed whether the differences constitute steps which would have been obvious to the person skilled in the art.

14 As discussed under Step 1 above the skilled person in this case can be considered to be a team with a combination of skills. It falls to me to decide, firstly, whether the formation of such a team would be obvious and then whether the together the members of such a team would find the invention obvious.

15 At the hearing, Mr Johnson expanded on this, using the judgment of *Schlumberger Holdings*[3] to support his arguments. In particular, paragraphs 71-74 lay out the principle that for an invention to be obvious to a team, it must first be obvious to form the team. In *Schlumberger*, a team of exploration geophysicists had a problem but would they have been aware that it could be solved using a new scientific technique known to a very small number of people and whose application to the real world had not been contemplated? The Court of Appeal decided, on the facts of the case, that there was no reason to expect the geophysicists to be aware of the work being done by a small academic team, and conversely there was no reason for the academics to consider the problem being faced by the geophysicists. It followed that, in that case, the formation of the team was non-obvious and the combination of the marrying together of the technologies was inventive.

16 Mr Johnson sought to convince me that the facts of this application may be considered in a similar manner to that of the judgment in *Schlumberger.* Specifically, to use his words from the skeleton argument, that '…if an invention becomes significant by introducing knowledge from a different technical field, then it is not obvious'. In effect, Mr Johnson's position, if I understand it correctly, is that the skilled person in this case must be a team but the formation of that team is in itself non-obvious.

17 I do not agree. My reading of *Schlumberger* is that an invention is not obvious where it relies on introducing knowledge from another technical field <u>if that other technical field is not obvious</u>. In my view, *Schlumberger* teaches us that it is perfectly permissible to treat the skilled person as a team, but that we must consider whether

[3] *Schlumberger Holdings Limited v Electromagnetic Geoservices Ltd* [2010] EWCA Civ 819

the formation of such a team would have been obvious when considering the question of inventive step.

18 Considering the judgment in *Schlumberger*, I note that the circumstances of that case were somewhat unusual in that the technical solution in that case relied on cutting-edge technology known to only a few people, all of whom would be unlikely to have any knowledge of the geophysics of oil exploration. Mr Johnson was at some pains to argue that the current application was the same, and that two individuals with the necessary expertise to come up with the invention would simply not recognise the potential to work together. In other words, he submitted that neither 'X' nor 'Y', in the light of their disparate individual common general knowledge would be motivated to modify the drinking aids disclosed in the prior art specifications noted above.

19 The concept of the collection and remote monitoring of data is well-established in the medical care field as an aspect of telemedicine. In his most recent letter, the Examiner provided a number of examples of this, namely US 2006/0154642 and US 2008/0001735 in the parallel field of remote monitoring of medication usage, and US 2010/0283601, US 2002/0129663 and US 2007/00909296 in the field of monitoring fluid intake. However, to my mind these are superfluous. The medical professional (Mr Johnson's person 'X') seeking a means to remind an elderly or vulnerable patient to drink would be all too aware of the value of data collection to confirm that the reminder had been successful. He or She would be surrounded by examples of equipment which provided this type of function remotely. In specifying a new device the incorporation of such a function would be obvious to this individual, albeit they might lack the skill to implement such a system. They would therefore seek out the expertise needed to design it (person 'Y'). In contrast to *Schlumberger*, I consider the formation of this team is obvious since its formation is based on the recognition of the potential answer to the problem by the medical expert. I therefore find that the invention does not involve an inventive step.

Conclusion.

20 I have found that the application lacks an inventive step over the prior art as required by section 1(1)(b) of the Patents Act 1977. I am unable to identify any saving amendment, and accordingly refuse the application under section 18(3).

Appeal

21 Any appeal must be lodged within 28 days after the date of this decision.

Mrs S E Chalmers

Deputy Director, acting for the Comptroller