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Case No: IP-2022-000067

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
INTELLECTUAL PROPERTY ENTERPRISE COURT

Royal Courts of Justice, Rolls Building
Fetter Lane, London, EC4A 1NL

Date: 27 February 2025

Before :

HIS HONOUR JUDGE HACON

- -

Between :

PREVAYL INNOVATIONS LIMITED	**Claimant**
- and -	
WHOOP INC.	**Defendant**

- -
- -

Richard Davis KC (instructed by **Appleyard Lees IP LLP**) for the **Claimant**
Henry Ward (instructed by **Simmons & Simmons LLP**) for the **Defendant**

Hearing dates: 20-21 January 2025

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Approved Judgment

This judgment was handed down remotely at 10.30am on 27 February 2025 by circulation to the parties or their representatives by e-mail and by release to the National Archives.

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HIS HONOUR JUDGE HACON

Judge Hacon :

Introduction

1. The claimant ('Prevayl') is the owner of UK Patent GB 2 589 947 ('the Patent'). It relates to a type of bra which incorporates technology that measures biosignals produced by the wearer, sometimes called a 'smart bra'. (A biosignal is any signal emitted by a living being which can be measured and monitored.) For instance, electrodes can be used to measure the heart's electrical activity during exercise, which may be informative of the health and fitness of the wearer.

2. Prevayl alleges that the defendant ('Whoop') has infringed the Patent. Whoop counterclaims, seeking a declaration that the Patent is invalid due to lack of novelty or inventive step over the cited prior art.

The skilled team

3. The parties were agreed that the skilled team consists of an individual with experience in the design and manufacture of garments, including bras, and an individual with experience in the use and placement of biosensors. The expertise of both members of the team could be combined in a single skilled person.

The experts

4. Prevayl had two expert witnesses. Dr Jacob Skinner is the Chief Technology Officer of two startups, one in the UK and the other in California. He has a background in electronics which has included the development of wearable technology businesses. Piers Thomas has been the Creative Director of a design and development consultancy for the last 24 years and has much experience in the design of garments, including those worn by athletes. Dr Skinner and Mr Thomas produced a joint expert report with another in reply. Both reports were set out to show which parts of the evidence were being given by which expert.

5. Whoop fielded one expert, Professor Monica Schraefel. She is Professor of Computer Science and Human Performance at the University of Southampton. Professor Schraefel's research is principally concerned with developing and evaluating technologies which improve human health and quality of life.

6. All three experts were excellent witnesses.

The Patent

7. The Patent has an unchallenged priority date of 9 September 2019. It acknowledges at the start of the specification that garments, including bras, which incorporate sensors to measure the biosignals of the wearer were known. Also known were sports bras which have an underband at the base of the bra, typically of an elastic material, to provide the wearer with additional support while exercising. Smart sports bras with underbands were known.

8. The idea of the invention is to place the apparatus which measures the biosignals at the side of the wearer. The background section of the Patent says that prior art smart bras

positioned the apparatus in a prominent position, such as on the chest or between the shoulder blades. This allowed ready access to the device but could be both uncomfortable for the wearer and unsightly. The invention overcomes these disadvantages by locating the measuring apparatus in the side region of the bra, a position which allows accessibility, while being both unobtrusive and comfortable.

9. These are claims 1 and 2:

> '*1. A bra for use in measuring biosignals of a wearer, the bra comprising: a front region comprising a pair of breast contacting surfaces; a rear region; a pair of side regions extending between the front region and the rear region; an underband, the underband extending below a lower edge of the front region, rear region and side regions; and a measuring apparatus comprising a sensor assembly comprising one or more sensors, wherein all of the sensor assembly is provided in one of the side regions and is not provided in the underband.*
>
> *2. A bra as claimed in claim 1 further comprising a mounting arrangement, wherein the mounting arrangement comprises a pocket provided in one of the side regions where the sensor assembly is provided, optionally the pocket is a hidden pocket.*'

10. The first part of claim 1 divides the bra into front, rear and side regions. No sharp distinction between the regions is given in the specification but this did not seem to create a difficulty. It was not said that 'side region' is a term of art among bra specialists. This part of the claim also requires the presence of an underband positioned below and across the front, rear and side regions of the bra.

11. There is a measuring apparatus which includes a sensor assembly with one or more sensors. This is paragraph [0006] of the description:

> '[0006] According to a first aspect of the present invention there is provided a bra for use in measuring biosignals of a wearer, the bra comprising: a front region; a near region; a pair of side regions extending between the front region and the rear region; and a measuring apparatus comprising an electronics module; and a sensor assembly comprising one or more sensors, wherein the electronics module is located in one or the side regions.'

12. Paragraph [0006] specifies that the electronics module is located in one of the side regions of the bra, which is the arrangement envisaged throughout the description. It appears that during the prosecution of the Patent this notion of the invention was abandoned. What can be taken to be the characterising portion of claim 1, after 'wherein', shows that the invention as now claimed instead places the sensor assembly in one of the side regions.

13. The claim also requires that the sensor assembly is not in the underband, i.e. the part of the underband located at the side of the bra is not a location of the sensor assembly within the claims.

14. Paragraph [0006] assists in the understanding of the 'measuring apparatus' of claim 1. It includes an electronics module and a sensor assembly which has one or more sensors.

Paragraph [0013] says that a part or all of the sensor assembly may be located in the side region, along with the electronics module.

15. Claim 1 does not exclude the possibility that both the sensor assembly and the electronics module are located in one of the side regions. The electronics module could be anywhere on the bra.

16. Dr Skinner's written evidence indicated that he thought that the 'sensor assembly' meant not just the sensors but also the electronics module, the battery, the processor and the Bluetooth communications system mentioned in the description. Accordingly, and as confirmed in cross-examination, he assumed that claim 1 requires both the sensor assembly and electronics module to be in one of the side regions. I disagree. Only the sensor assembly must be in a side region, away from the underband.

17. Whoop submitted that there could be more than one sensor assembly, although their expert, Professor Schraefel, said that she was unclear about that.

18. Save that it consists of one or more sensors, it is not clear from the description of the Patent what a sensor assembly is. There is nothing in the description to which my attention was drawn which either states or implies that there is more than one sensor assembly.

19. Paragraphs [0012] and [0013] provide the basis for what in the end became the invention as claimed in claim 1. Paragraph [0012] has this:

> 'Advantageously, it has been found that positioning the sensors in other regions of the bra and in the side region, in particular, ensures sufficient skin sensor contact while avoiding the need to provide an unnecessarily wide underband.'

20. Paragraph [0013] says:

> 'A part or all of the sensor assembly may be located in the side region. That is, one or more of the sensors may be located in the side region.'

21. I think that reading these together the skilled team would have understood that all the sensors can be in the side region, in which case all the sensor assembly is in the side region. It follows that there is only one sensor assembly. The sensor assembly just means the entirety of the sensors used.

22. Paragraph [0013] implies that some sensors may be outside the side region. But the words of claim 1 are strong: all of the sensor assembly is provided in one of the side regions and not in the underband. I find that all of the sensor assembly and thus all of the one or more sensors must be in one of the side portions of the bra and not in the underband.

23. Whoop submitted that the requirement that there is a sensor assembly entirely located in a side portion and not in the underband does not exclude the possibility of another sensor assembly elsewhere. Since I have found that 'sensor assembly' means the entirety of the sensors used, I reject that submission.

24. Claim 2 provides for a pocket in one of the side regions 'where the sensor assembly is provided'. On a first reading of the claim 'where' could mean that both the pocket and

sensor assembly must be placed at one of the side regions. Alternatively, 'where' could mean 'in exactly the same location where', so that the sensor assembly must be located in the pocket. The description does not help because it speaks of the electronics module, not the sensor assembly, being located in the pocket.

25. Claim 3, dependent on claim 2, requires that the pocket must be accessible to provide access to the electronics module of the measuring apparatus. It was part of the CGK that there was an advantage in being able to remove the electronics module when washing the bra, although sensors could remain in place. In use the electronics module would be releasably connected to the sensor or sensors.

26. This supports the idea that the pocket is for the module rather than the sensors. The sensors and the module will be advantageously close to each other in the claim 2 arrangement, both being in the side region of the bra. I think on a more straightforward reading of claim 2 the sensor assembly need not be in the pocket.

The prior art

27. Two items of prior art were cited by Whoop:

    (1) US Patent Application 2018/0317845 ('US 845')

    (2) PCT Application WO 2018/206853 ('PCT 853')

28. US 845 was relied on for allegations of lack of novelty and inventive step, PCT 853 just for lack of inventive step. Both were published in November 2018.

US 845

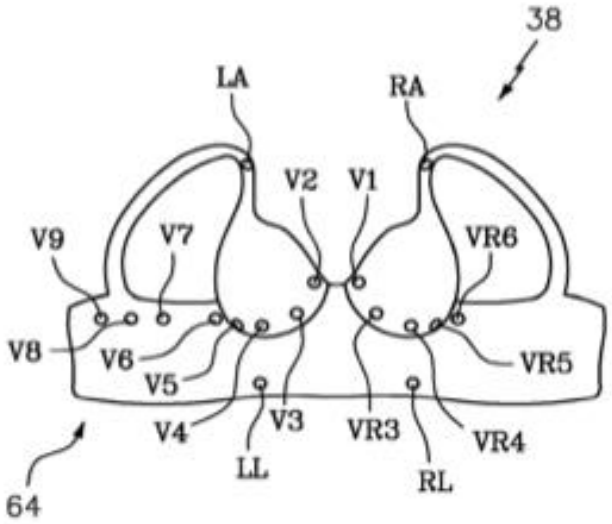
29. The invention claimed in US 845 is entitled 'Padded, flexible encasing for body monitoring systems in fabrics'. It is directed to a wearable monitoring device having padding and protective layers which together encase and protect a printed circuit board (PCB). The PCB is coupled to at least one sensor configured to monitor a physiological condition of the wearer. It was agreed that the monitoring of a physiological condition is the same thing as measuring biosignals. An exemplary embodiment in US 845 is a bra in which such a device is installed.

30. The device has alternative sensors to measure different types of signal, the sensors being coupled to a monitoring device, an electronics module and to a power source such as a battery. US 845 also describes a pocket in which the monitoring device can be fitted.

Novelty

31. The only integer of claim 1 of the Patent identified by Prevayl as missing from US 845 was the characterising portion of the claim: 'wherein all of the sensor assembly is provided in one or more of the side regions and is not provided in the underband'.

32. Figure 5 of US 845 shows sensors in a variety of places, outside and within the side regions of the bra, in and outside the underband. Although Figure 5 does not label the underband, it was common ground that there is one, being the portion of the broadly rectangular section lower than the base of the cups. This is Figure 5:



33. It was not in dispute that the sensor marked V7 is in the side region and not in the underband. V6 is probably another.

34. Prevayl argued that although claim 1 of US 845 referred to the use of 'at least one sensor', this was not a disclosure that the device could be made with only one sensor. I reject that. The claims are part of the disclosure and anyway the abstract of US 845 tells the reader that 'at least one sensor' is to be used.

35. US 845 does not say where the one sensor could be. The parties' pleaded cases focussed on Figure 5. Using that as a guide, the sensor could be in any of the places shown, which include locations in a side region and not in an underband. Whoop submitted that accordingly this was a disclosure which anticipates claim 1.

36. I do not agree. For claim 1 to be anticipated in this way it would be necessary for US 845 to give clear and unmistakable directions to use a single sensor located in a side region of the bra and not in an underband. US 845 discloses this as one among many possibilities without it being singled out. Claim 1 does not lack novelty over US 845 and therefore neither does claim 2.

Inventive step – claim 1

37. Given the way that novelty was argued, one might have thought that the only issue in relation to inventive step was whether it would have been obvious to the skilled reader of US 845 at the priority date that if one sensor were used, it could be in a side region and not in the underband.

38. However, Prevayl expanded this into a three-step change from US 845, all of which had to be contemplated by the skilled team in order to arrive at the claim 1 invention and considering them individually, Prevayl said, was the sort of step-by-step approach deprecated Lord Diplock in *Mills & Rockley (Electronics) Limited v Technograph Printed Circuits Limited* [1972] RPC 346.

39. Prevayl's starting point was Figure 5: the skilled team would have recognised that Figure 5 showed sensors which would be attached to a conventional 12-lead electrocardiogram (ECG) monitor. This contention was supported by the evidence of

Dr Skinner. He said that the sensors of an ECG system have to be positioned broadly across the garment to capture the relevant information about the heart.

40. Prevayl also relied on these passages from US 845:

> '[0028] FIG. 4 and FIG. 5 illustrate a wearer 62 and the garment 38 and the variety of sensors 40 placed in locations 64 understood to be optimal for electrophysiological measurement of the cardiovascular system of the body. The American Heart Association (AHA) and International Electrotechnical Commission include electrode positions for electrocardiogram or other cardiovascular measurements. The garment 38 can include sensor 40 locations following these guidelines.
>
> [0029] The electrode positions (AHA lead wire labels/IEC labels, and the drawings are shown with AHA labels).
>
> [0030] Electrode positions are commonly known as follows: [list follows]'

41. Prevayl submitted that it would not occur to the skilled team to use any fewer than the necessary full complement of sensors attached to the 12-lead monitor. Even if it did, neither US 845 nor the common general knowledge (CGK) would provide any guidance as to which sensors should remain and which be left out.

42. This led to Prevayl's three steps:

(1) Abandon the 12-lead ECG monitoring device shown in Figure 5.

(2) Decide to use only one sensor.

(3) Choose to use a sensor in a side region and not in the underband.

43. In my view, at most two steps are required. The skilled team's first step would have been to use one sensor. This is an option taught in US 845, which also teaches 'a variety of sensors designed to sense a person's electrophysiology, biological features and the like' can be used. The first step would necessitate abandoning the Figure 5 ECG 12-lead arrangement. He or she would then have to decide to locate the sensor in a side region and not in the underband.

44. Whoop argued that the background section of the Patent gives the game away. The Patent explains that positioning the electronics module or related components on the chest or between the shoulder blades can be both uncomfortable and unsightly. Dr Skinner confirmed that this was CGK. This inevitably left the side portion as an obvious location, optionally either in or outside the underband.

45. I agree that no apparent inventive step springs from the pages of the Patent. On the other hand, simple inventions can be especially vulnerable to hindsight.

46. Dr Skinner said that it was part of the CGK to have the module and the sensor in a single unit. Given the background knowledge that there are disadvantages in locating the sensors at the front or back, whether with a module or without, Prevayl's argument on inventive step would best have been supported by a reason why locating at the side would have been seen by the skilled team as carrying one or more disadvantages so that

location at the side would have been dismissed at the priority date, and so not an obvious workable alternative.

47. None was identified. Instead, Prevayl's argument was that there was a 'mindset' among those in the art that the sensor or sensors had to be placed at the front or back, or if at the side then in the underband. The evidence relied on in support of the existence of this mindset was the lack of evidence of any bra within the CGK that had any other arrangement.

48. Prevayl's electronic monitor expert, Dr Skinner, confirmed that it would have been part of the CGK that locating a sensor at the side of the bra to measure heart rate was a good location from the perspective of functionality. Prevayl's expert on bra design was asked about this from the designer's point of view. Mr Thomas said that people did not want unsightly protuberances on the front or back, although if it was just a sensor, these were slim enough to go anywhere.

49. Mr Thomas explained that because modules and sensors are structurally hard, the designer of a bra wanted to locate them in a stiff part of the bra, the underband. It would have been more challenging put them in other parts of the bra where there is more variability of warp and weft. However, he accepted that this would have been something that the designer could have done as a matter of CGK.

50. What I take from this evidence is that at the priority date the skilled team would have known that the sensors, with or without a module, could go almost anywhere so far as function was concerned. There were disadvantages in putting either at the front or back, which made the side more attractive, but there were sound design reasons why the sensors should be confined to the underband. This explains why most bras on the market did not have sensors in the side portion outside the underband. However, it was an obvious option despite disadvantages. There was no mindset of the kind alleged by Prevayl.

51. I find that claim 1 of the Patent is obvious over US 845.

Inventive step – claim 2

52. The additional feature of claim 2 is a pocket in one of the side regions. Mr Thomas said in oral evidence that one of the design options that the skilled bra designer would have in their armoury was a pocket to house a removeable electronic item. If sensors were in the pocket it would be necessary to use a mesh pocket to allow access to the skin, also something that the skilled designer would consider as a CGK alternative. I accept that evidence. Claim 2 is obvious over US 845.

PCT 853

53. PCT 853 claims an invention entitled 'A bra for measuring a physiological signal'. The background section identifies the disadvantages of the prior art. It is probably translated from Finnish which may account for the odd phrasing:

> 'In the sports bra there is often an elastic underband which has space for sensors and measuring electronics. However, this approach cannot be used in the daily worn bra, because daily worn bra should typically be skin-tight and comfortable

> for worn whole day so in other words there is no space for additional sensor package or the like under the cups.'

54. As that passage implies, the invention is about fitting sensors to a conventional bra not a sports bra. The idea disclosed is to have a measuring device or electrode in a removable module which forms a side wing of the bra. This is the characterising portion of claim 1:

> '… the bra comprises a measuring device and/or at least two electrodes, where said measuring device or at least one electrode is arranged to a module, and wherein the module forms at least a basis of the first side wing of the bra.'

55. It was agreed that an 'electrode' in PCT 853 is the same as a 'sensor' in claim 1 of the Patent. The biosignals measured by the electrodes are typically those used in electrocardiograms for detecting the wearer's heart rate but other signals could be measured.

56. Prevayl submitted that there are two points of distinction between the invention of claim 1 and that of PCT 853:

(1) There is no underband in PCT 853, and

(2) The sensors of PCT 853 are not only in the side region of the bra, but extend to the rear region.

57. Prevayl said that the whole teaching of PCT 853 is not to have an underband – it is all about a bra that is not a sports bra.

58. I agree that PCT 853 is not dealing with a sports bra, but it does not follow that it would not be obvious to use the PCT 853 idea in a sports bra, just by adding an underband.

59. Dr Skinner agreed that from the perspective of the biosensors skilled person who was considering making a sports bra, it would be obvious from reading PCT 853 that a sensor could go on the side of the bra, either in the underband or not. This would be the case whether the sensor was combined with the electronics module or not.

60. Mr Thomas, from the bra designer's perspective said that it would not be normal to add an underband to a daily bra because of the different physical requirements and component make up of a daily bra compared to a sports bra.

61. Professor Schraefel considered the skilled team starting with a sports bra and whether they would think of amending the sports bra having read PCT 853. She said that the skilled team would not have incorporated a removeable module of the type disclosed in PCT 853 into a sports bra because a sports bra is made of stretchy material that does not have fastenings like a regular bra. However, the skilled team would have considered incorporating the module as a fixed non-detachable portion in a sports bra.

62. Dr Skinner and Mr Thomas were approaching PCT 853 from different starting points: Mr Thomas was thinking about adding an underband to the regular bra of PCT 853. Dr Skinner was considering a modification to a sports bra. Their evidence is not inconsistent. Taken in combination, Dr Skinner's evidence holds good: it would have

been obvious having read PCT 853 to make a sports bra with sensors in the side region and not in the underband. Professor Schraefel's evidence was consistent with this.

63. Mr Thomas's evidence about pockets discussed above in relation to US 845 showed that the pocket of claim 2 of the Patent was on obvious option known to the skilled team at the priority date.

64. Both claims 1 and 2 of the Patent lack inventive step over PCT 853.

Infringement – the issues

65. Whoop separately supplies two relevant products. The first is a sports bra which has a pocket for a bio-sensor device ('the Whoop Bra'). The pocket is designed to receive a wearable sensor module. There are alternative suppliers of modules that would fit and work in the Whoop Bra. One of the alternatives is Whoop's second relevant product, the Whoop 4.0 sensor module. The Whoop 4.0 need not be used with a bra; in fact, most usually it is worn on a wrist strap.

66. Whoop accepted that the Whoop Bra with a Whoop 4.0 installed in the pocket together constitute a product within claims 1 and 2 of the Patent.

67. The Whoop Bra is sold in the UK. The Whoop 4.0 is supplied free to customers in the UK who subscribe to a membership scheme which allows the subscriber to have access to the Whoop app. The app provides coaching information, weekly and monthly performance reports and what were described as personalised insights.

68. Whoop did not dispute that the supply of the Whoop Bra was an act of infringement. Whoop accepted that the Whoop Bra is both a means relating to an essential element of the invention of the Patent and is suitable for putting the invention into effect. By contrast, according to Whoop the Whoop 4.0 is neither.

69. Whoop suggested that if this were not so, it would give rise to a nonsense: if 100 Whoop Bras were sold and 1000 Whoop 4.0s supplied, there would be 1000 infringements even though the invention of the Patent was implemented only 100 times.

70. Prevayl argued that the Whoop 4.0 was both a means relating to an essential element of the invention and was suitable for putting the invention into effect. Prevayl was concerned that absent a finding that supplies of Whoop 4.0 modules were acts of infringement, Prevayl would only get damages arising from sales of Whoop Bras.

71. Possibly the concerns of both parties are of no practical substance. In an inquiry for damages it may be that Prevayl would be entitled to seek parasitic damages in respect of loss flowing from the supply of Whoop 4.0 modules that had been fitted to the bras sold. Going to Whoop's nonsense example, even though 1000 bras were sold, Prevayl would be entitled to claim damages only for loss caused by Whoop's working of the invention, which may well be taken to mean the loss caused by customers buying the 100 Whoop Bras into which Whoop 4.0 modules have been installed. However, this was not explored by the parties from the perspective of the law on damages and accounts.

72. The issue regarding infringement by supplies of Whoop 4.0 modules was before the court and I must decide the point.

The law on indirect infringement

The statute

73. Section 60(2) of the Patents Act 1977 provides:

> '*(2) Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if, while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting, and are intended to put, the invention into effect in the United Kingdom.*'

Means relating to an essential element

74. In *Nestec SA v Dualit Ltd* [2013] EWHC 923 the claimant (Nestec) alleged that the defendant (Dualit) had infringed Nestec's patent which claimed an extraction system comprising a device for the extraction of a capsule and a capsule that could be extracted from the device. Nestec's capsules looked like this, notably with a circumferential flange at one end:

75. Nestec alleged that its patent had been infringed by Dualit's supply of similar capsules which were compatible with Nestec's Nespresso coffee machines.

76. Arnold J reviewed judgments of the German Federal Court of Justice and a judgment of the Dutch Supreme Court which had considered national provisions equivalent to s.60(2). He preferred the approach of the German court which had been that in order to qualify as a means relating to an essential element of the invention, the means in question had to contribute to implementing the technical teaching of the invention. It did not matter where the core of the invention lies. (Updating this in English terms, it probably means that it is irrelevant whether the means contributes to the inventive concept). On the other hand, if a feature is of completely subordinate importance for the technical teaching, it could be regarded as a non-essential element. The fact that the feature was known in the prior art was not of itself a reason for finding that it was non-essential.

77. Arnold J found that the capsule did constitute means relating to an essential element of the invention:

> '[176] … Although the invention takes the capsule as a given, and claim 1 only requires the capsule to have a guide edge in the form of a flange, the flange of the capsule plays a significant role in the way in which the claimed invention works.'

Knowledge and intention

78. In *KCI Licensing Inc v Smith & Nephew plc* [2010] EWCA Civ 1260, Jacob LJ summarised (at [53]) the nature of the requirement of knowledge in s.60(2) taken from his and Etherton LJ's joint judgment in *Grimme Maschinenfabrik GmbH & Co KG v Scott* [2010] EWCA Civ 1110, with paragraph references from the earlier judgment:

> 'i) The required intention is to put the invention into effect. The question is what the supplier knows or ought to know about the intention of the person who is in a position to put the invention into effect – the person at the end of the supply chain, [108].
>
> ii) It is enough if the supplier knows (or it is obvious to a reasonable person in the circumstances) that some ultimate users will intend to use or adapt the "means" so as to infringe, [107(i)] and [114].
>
> iii) There is no requirement that the intention of the individual ultimate user must be known to the defendant at the moment of the alleged infringement, [124].
>
> iv) Whilst it is the intention of the ultimate user which matters, a future intention of a future ultimate user is enough if that is what one would expect in all the circumstances, [125].
>
> v) The knowledge and intention requirements are satisfied if, at the time of supply or offer to supply, the supplier knows, or it obvious to a reasonable person in the circumstances, that ultimate users will intend to put the invention into effect. This has to be proved on the usual standard of the balance of probabilities. It is not enough merely that the means are suitable for putting the invention into effect (for that is a separate requirement), but it is likely to be the case where the supplier proposes or recommends or even indicates the possibility of such use in his promotional material, [131].'

Means suitable for putting the invention into effect

79. In *Nestec* the parties were agreed about how to assess the criterion of a 'means suitable for putting the invention into effect':

> '[183] … It is common ground that this depends on whether a person who purchases a [Dualit] capsule for use together with a relevant kind of Nespresso machine thereby "makes" a system falling within claim 1 of the Patent.'

80. Arnold J reviewed the judgment of the House of Lords in *United Wire Ltd v Screen Repair Services (Scotland) Ltd* [2001] RPC 24 and that of the Supreme Court in *Schütz*

(UK) Ltd v Werit UK Ltd [2013] UKSC 16 and concluded that an owner of a relevant Nespresso machine who acquired a Dualit capsule did not 'make' a system as claimed in Nestec's patent. This was on five grounds. First, the capsule was an entirely subsidiary part of the system; secondly, the Nespresso machines and the capsules had an independent commercial existence; thirdly, Arnold J thought that purchasers of Nespresso machines would assume that they were entitled to obtain capsules from any source they pleased; fourthly, the capsule did not embody the inventive concept of Nestec's patent; fifthly, the owner of the coffee machine was not even repairing it, let alone making one.

81. I have difficulty with the parties' joint position in *Nestec*. It is hard to see why the act of purchase of a Dualit capsule could ever be equated with making the invention, which was an extraction system comprising a mechanical device with moving parts and features such as a housing to receive the capsule and a beverage delivery system. Alternatively, if the relevant issue is whether the capsule is a means for putting the invention into effect by using it in a Nespresso machine, it is not self-evident that the framers of art.26(1) of the Community Patent Convention (from which s.60(2) is derived) intended the criteria governing 'putting the invention into effect' to be exactly those later explained in *Schütz* in a different context.

82. Here it must be assumed that the means in question relates to an essential element of the invention. If on the facts that means, following supply, will be adapted or used together with some other means and this will lead to the invention being put into effect, and the requirements of knowledge and intent are satisfied, I find it hard to see why the act of supply is not an act of infringement as contemplated by those who drafted art.26(1). The same would apply if the invention were a process.

83. It seems to me that the central dispute in *United Wire* and *Schütz*, i.e. whether the defendant was making or only repairing a product, raised factors such as whether the means supplied is merely a subsidiary part of the inventive system or whether it has an independent commercial existence, which are not relevant in the context of this aspect of art.26(1). One or other of such factors may on some facts have a bearing on whether the means relates to an essential element of the invention, but that is by the way.

84. In *Grimme* the patent claimed an apparatus for separating potatoes from clods of earth and other materials on them when harvested. The apparatus had rollers with certain features. It was found that an apparatus with rubber rollers fell within the claim whereas an apparatus with steel rollers did not. The machines were sold with steel rollers but were marketed on the basis that these could be replaced with rubber rollers. Sales of the machines with steel rollers were held by the Court of Appeal to infringe under s.60(2). I find it hard to reconcile the adaptation of an agricultural machine by replacing steel rollers with rubber rollers with the concept of 'making' a product as explained in *Schütz*.

85. In *KCI Licensing* the patent claimed a disposable canister having various features that is used in apparatus which applies negative pressure to the dressing pad of a wound. The defendant sold canisters without a clamp means on the inlet tube of the canister. It was found at first instance that medical staff sometimes used a clamp. The Court of Appeal found that there had been infringement under s.60(2). Again, I find it difficult to reconcile the addition of a clamp to the inlet tube of the canister with the *Schütz* concept of 'making' a canister.

86. I can well see that where, as was apparently the case in *Nestec*, a finding of infringement would give the patentee an unfair monopoly in the supply of the means in question to the public, it would be unsatisfactory to allow such a monopoly. But there are other provisions of the law which may deal with that difficulty.

Summary of the law under s.60(2)

87. I was not provided with any authorities from other European jurisdictions in which the law on infringement follows the terms of art.26(1) CPC, specifically with regard to 'means suitable for putting the invention into effect'. However, I conclude that in relation to the supply of a product to a person not entitled to work the invention, there is an act of infringement under s.60(2) if the following are found on the balance of probabilities:

    (1) there is in the United Kingdom a supply or offer to supply a means relating to an essential element of the invention, i.e. a means which contributes to implementing the technical teaching of the invention without being of completely subordinate importance, irrespective of where the core of the invention lies;

    (2) adaptation of such means or its use together with other means would put the invention into effect; and

    (3) at the time of supply or offer to supply, the supplier knows, or it would be obvious to a reasonable person in the circumstances, that (a) adaptation of the means supplied or its use together with other means would put the invention into effect and (b) at least some ultimate users will intend to put the invention into effect in the United Kingdom in that way.

Infringement – this case

88. The only arguments raised by Whoop were that the Whoop 4.0 module is neither a means relating to an essential element of the invention of the Patent nor a means suitable for putting the invention into effect.

89. As to the first, Whoop said that the technical teaching of the invention is the location of a sensor in a part of the bra that minimises discomfort for the wearer; that is achieved by the design of the bra, not any feature of the module.

90. Prevayl argued that implementation of the invention requires a sensor assembly of an appropriate size and shape to be located in the side portion and not in the underband. It also requires the sensors to be in a position to make the necessary contact with the wearer.

91. I think that Whoop's argument focuses too much on the core of the invention – locating the measuring apparatus in a position where it will work and can be accessed, and which will overcome the disadvantages of the prior art, namely that the presence of the apparatus was uncomfortable and unsightly. The invention as claimed is a bra which includes, among other things, a measuring apparatus with a sensor assembly. The measuring apparatus is not a completely subordinate part of that invention. On the

contrary, it is a central feature of the advantage promised by the invention: a comfortable and sightly bra which will measure biosignals produced by the wearer.

92. With regard to the module being a means suitable for putting the invention into effect, it was not in dispute that when used with a Whoop Bra it would put the invention into effect. (Nor was it in dispute that it was foreseeable on the part of Whoop that some users of the Whoop 4.0 module would intend to do exactly that.)

93. I see no objection in principle to the supply of more than one type of means constituting indirect infringement of the same patent. For the reasons I have explained, this is unlikely to lead to an excessive award of damages or sums in an account of profits.

94. I find that the supply of Whoop 4.0 modules constituted acts of infringement of the Patent.

Conclusion

95. The Patent is invalid for lack of inventive step. Had it been valid, it would have been infringed by the supply of either a Whoop Bra or a Whoop 4.0 module.