

Patents Act 1977**Opinion
Number****12/21****OPINION UNDER SECTION 74A**

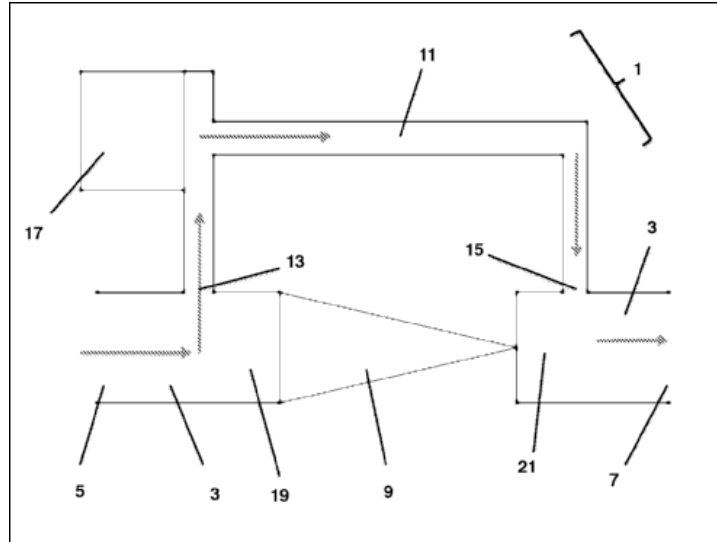
Patent	GB 2477599 B
Proprietor(s)	WrightSolar Ltd
Exclusive Licensee	-
Requester	Maucher Jenkins
Observer(s)	-
Date Opinion issued	04 October 2021

The request

1. The comptroller has been requested by Maucher Jenkins (the Requester) to issue an Opinion on whether GB 2477599 B (the Patent) is infringed by an embodiment which they have described in the request (the Product).
2. The Patent was filed 17th December 2010 having an earliest priority 17th December 2009. The Patent was granted on the 11th July 2012 and remains in force.
3. The request provides a single figure and brief description of the Product. The request asks whether the disposal and use of the Product in the UK, or its importation, would amount to infringement of the Patent. No observations have been received.

The patent

4. The Patent is entitled 'Pressure enhancing device', and relates to a device and method that, in use, enhances the pressure within a fluid conduit. The device finds application in domestic plumbing, civil water engineering as well as the transport of oil or gas.
5. The device, illustrated below, comprises an inlet 5 and an outlet 7 connected by a first conduit 3, wherein the first conduit comprises a non-return valve 9. A second conduit is connected to the first conduit at a branch inlet 13 and a branch outlet 15 arranged either side of the non-return valve. The second conduit is provided with an electric pump.



6. The non-return valve is configured open to allow fluid flow in a direction between the inlet and the outlet unless a pressure differential exists; where the pressure at the downstream side of the non-return valve is greater than the pressure at the upstream side, in which case the valve closes. The second conduit is provided with a pumping means which is configured to create a relatively low pressure zone 19 upstream of the non-return valve and a relatively high pressure zone 21 downstream of the non-return valve, this is used to govern the non-return valve such that the device may deliver a high pressure/low flow rate or a low pressure/high flow rate.

7. The patent has two independent claims and an omnibus claim. Claim 1, adopting the references used by the Requester, reads;

- (a) *A device for increasing fluid pressure the device having*
- (b) *a fluid inlet,*
- (c) *a fluid outlet,*
- (d) *a first conduit connecting the fluid inlet and fluid outlet,*
- (e) *the first conduit provided with a non-return valve*
- (f) *a second conduit connected to the first conduit by a branch inlet and a branch outlet,*
- (g) *the branch inlet and branch outlet configured relative the first conduit to connect the second conduit to the first conduit either side of the non-return valve,*
- (h) *wherein the second conduit is provided with a fluid pumping means and*
- (i) *wherein the pumping means is an electronically powered pump having a power demand of up to 50W.*

8. Claim 12 reads;

A method of increasing the pressure of fluid through a fluid conduit (e.g. at an outlet supplied by a fluid conduit), the method comprising fitting the fluid conduit with a non-return (or one-way) valve whereby the valve allows fluid through the conduit in the direction of the outlet but not in the opposing direction, the method further comprising connecting a by-pass conduit to the fluid conduit before and after (i.e. upstream and downstream of) the non-return valve and providing in the by-pass conduit a pumping means for pumping fluid through the bypass conduit from upstream of the non-return valve to downstream of the non-return valve, the pump means being an electrically powered pump having a power demand of up to 50W sized to provide the desired pressure.

9. Claim 16 reads;

A device for enhancing the pressure in a fluid conduit as hereinbefore described with reference to the drawings.

Claim construction

10. Before considering the issues in the request I need to construe the claims of the Patent, that is to say I must interpret them in the light of the description and drawings as instructed by Section 125(1). In doing so I must interpret the claims in context through the eyes of the person skilled in the art. Simply put, I must decide what the person skilled in the art would have understood the patentee to be using the language of the claims to mean. This approach has been confirmed in the recent decisions of the High Court in *Mylan v Yeda*¹ and the Court of Appeal in *Actavis v ICOS*².

11. I consider the person skilled in the art to be a piping design engineer working in the field relevant to the application of the Patent; this includes domestic plumbing, civil water engineering as well as the transport of oil or gas.

12. In their request the Requester has restricted their comments to elements f) and g) of claim 1 and, in the absence of any specific narrative, appears to find the remainder of the claim 1, and the entirety of claims 12 and 16, uncontentious.

Claim 1

13. The Requester speculates that, regarding feature f), the second conduit may be understood to be some nominal section of conduit between the fluid inlet and fluid outlet. The Requester further contends that the second conduit may be construed as not being an *'additional, independent passageway that is an alternative'* to the first passageway provided by the first conduit. The Requester does however concede that this may be an unnatural interpretation of the claim in light of a normal meaning of the word 'branch' used with respect to the branch inlet and branch outlet.

14. The contention with feature g) is associated with that Requester's speculation

¹ *Generics UK Ltd (t/a Mylan) v Yeda Research and Development Co. Ltd & Anor* [2017] EWHC 2629 (Pat)

² *Actavis Group & Ors v ICOS Corp & Eli Lilly & Co.* [2017] EWCA Civ 1671

concerning feature f) and is based on a further assertion that feature g) is vague due to the use of awkward grammar.

15. I do not have any such issue with the grammar, or the language, used regarding either feature f) or g) and find the claims relatively straightforward to construe. Although claim 1 does not explicitly define the second conduit as a bypass conduit bypassing the non-return valve, it is very clear to me from the positioning of the branch inlet and branch outlet with respect to the non-return valve that this is the intended scope of the claim. This *normal* construction, as alluded to by the Requester, is clearly implied by the language of the claim with respect to the terms '*branch inlet*' and '*branch outlet*'.

16. In my opinion the invention as set out in claim 1 relates, broadly speaking, to a device comprising an inlet, an outlet and a first conduit connecting the inlet and the outlet, wherein the first conduit is provided with a non-return valve; a branch inlet and branch outlet is arranged upstream and downstream with respect to the non-return valve and connects a second conduit in parallel with the portion of the first conduit comprising the non-return valve, wherein the second conduit further comprises an electronic pumping means.

Claim 12

17. The Requester observes that claim 12 explicitly recites "*connecting a by-pass conduit to the fluid conduit before and after (i.e. upstream and downstream of) the non-return valve and providing in the by-pass conduit a pumping means for pumping fluid through the bypass conduit from upstream of the non-return valve to downstream of the non-return valve*". The Requester, therefore, asserts that the claim 12 ought to be construed such that two branches are in a parallel arrangement wherein one branch comprises the pumping means and the other comprises the non-return valve.

18. It is my understanding that the Requester is using the term 'parallel' in the context of managing a flow wherein the bypass conduit and the portion of the fluid conduit comprising the non-return valve are connected at an upstream and downstream node facilitated by the connections between the bypass conduit and the fluid conduit arranged upstream and downstream of the non-return valve respectively.

19. I agree with this interpretation and, to me, the language of claim 12 is plain and presents no further issue regarding construction. Claim 12 therefore has substantially the same scope as claim 1, albeit relating to a method rather than an apparatus.

Claim 16

20. Claim 16 is an 'omnibus' type claim. The Requester has not provided any narrative on how this claim ought to be constructed. Guidance on how such claims are constructed is provided by the Manual of Patent Practice at paragraphs 14.125 and 14.125.1, which are reproduced below;

14.125 An omnibus claim should not suggest that a drawing, example or table

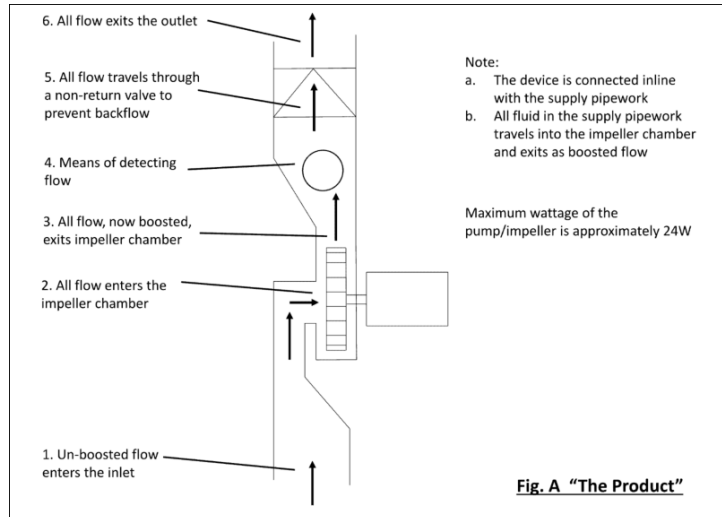
illustrates or exemplifies the invention if it does not, for example if it is present for comparison or as prior art, but there is no objection to referring to the invention "as described with respect to" such drawings, examples or tables, provided the wording of the claim and of the description makes the position clear. However, the words "substantially as described" are insufficient by themselves to limit a claim to the embodiment described, and its scope will be construed to be as wide as the statement of invention. In such cases care should be taken to ensure that the invention is set forth in precise terms in the body of the specification, that ambiguity does not arise (see 14.139.1 and 14.139.2) and that the statement of invention is not broader than the main claim (see 14.146). With regard to omnibus claims of copending applications describing the same apparatus, see 18.95.

14.125.1 In Raleigh Cycle Co Ltd and Anr. v Miller and Co Ltd, 65 RPC 141, an omnibus claim directed to a generator "constructed, and arranged substantially as described with reference to and as illustrated in the accompanying drawings" was construed as a narrow claim, but was held, by virtue of the qualification "substantially", to have been infringed by a generator not having stepped stator windings, even though the only embodiment specifically disclosed did have such windings. In Jansen Betonwaren B.V. v Ian Robbie Christie (BL O/496/15) the Hearing Officer considered the validity of an omnibus claim to "A building block substantially as described with reference to the drawings." The claim was construed narrowly such that it required the "four main design features" disclosed in the description and all features shown in the sole figure. The claim was nevertheless determined to lack novelty on the basis of prior public use. The Hearing Officer also found an even narrower construction of claim 1 was possible. Under this construction the claim required the building block to be manufactured using "a mix of concrete sand and cement as well as elastomer and thermoplastics". The additional limitation rendered the claim novel over the alleged prior use but resulted in the disclosure being insufficient.

21. Omnibus claims are inherently difficult to interpret. The Courts have tended to give omnibus claims a narrow interpretation limited to the specific embodiments described in and depicted in the figures. I think it would be reasonable to adopt the same approach in this instance, particularly in light of the absence of any narrative to the contrary from the Requester. Therefore, in my opinion the invention as described with reference to the figures would seem to have, at the very least, features that are substantially identical to those features set out in claims 1 and 12.

The Product

22. The Requester has provided a brief description and illustration of the Product, which I have included below. The Product relates to a device for increasing fluid pressure and comprises a fluid inlet 1 and a fluid outlet 2 joined by a single conduit, wherein the conduit comprises a impeller chamber 2, a means for detecting flow 4, and a non-return valve 5.



23. In use, all fluid that enters the fluid inlet sequentially flows through the impeller chamber, the non-return valve, and to the outlet in a single unbranched route.

Infringement

24. Section 60 of the Act states that:

(1) Subject to the provisions of this section, a person infringes a patent for an invention if, but only if, while the patent is in force he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say-

(a) Where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal or otherwise;

(b) Where the invention is a process, he uses the process or he offers it for use in the United Kingdom when he knows, or it is obvious to a reasonable person in the circumstances, that its use there without the consent of the proprietor would be an infringement of the patent;

(c) Where the invention is a process, he disposes of, offers to dispose of, uses or imports any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise.

(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.

25. In the Supreme Court in *Actavis v Eli Lilly*³ Lord Neuberger stated that the problem of infringement is best approached by addressing two issues, each of which is to be considered through the eyes of the notional addressee of the patent in suit, i.e. the person skilled in the relevant art. Those issues are:

(i) does the variant infringe any of the claims as a matter of normal interpretation; and, if not,

(ii) does the variant nonetheless infringe because it varies from the invention in a way or ways which is or are immaterial?

26. If the answer to either issue is “yes”, there is infringement; otherwise there is not.

27. The Requester argues that the Product does not disclose an additional, independent passageway that is an alternative of the first passageway as would be suggested by a normal interpretation of the term ‘*branch*’. Therefore, the Product does not infringe claim 1.

28. I agree with the Requester; the product does not disclose a first and second conduit arranged, at least in part, parallel to one another as I have construed the claim to mean as a matter of normal interpretation. Therefore, in my opinion, the Product does not infringe claim 1 as a matter of normal interpretation.

29. The second issue to be addressed is asking whether the variant provided by the Product varies in a way(s) which is immaterial? The court in *Actavis UK Limited* provided a reformulation of the three questions in *Improver*⁴ to provide guidelines or helpful assistance in connection with this second issue. These reformulated questions are:

(i) Notwithstanding that it is not within the literal meaning of the relevant claim(s) of the patent, does the variant achieve substantially the same result in substantially the same way as the invention, i.e. the inventive concept revealed by the patent?

(ii) Would it be obvious to the person skilled in the art, reading the patent at the priority date, but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?

(iii) Would such a reader of the patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of the relevant claim(s) of the patent was an essential requirement of the invention?

30. To establish infringement in a case where there is no literal infringement, a patentee would have to establish that the answer to the first two questions was “yes” and that the answer to the third question was “no”.

³ *Actavis UK Limited and others v Eli Lilly and Company* [2017] UKSC 48

⁴ *Improver* [1990] FSR 181

31. The issue of whether there is an immaterial difference may be answered by considering the first of these questions. In my opinion the inventive concept lies in controlling the pressure downstream from the non-return valve to influence flow therethrough. This is achieved by arranging a non-return valve in a first conduit and arranging an electric pump in a second conduit which bypassing the non-return valve of the first conduit. The Product is configured such that all fluid flow is directed through the non-return valve via an impeller pump therefore there is no control of the non-return valve by the electric pump. Consequently, based on the information provided in the request, I believe the product does not achieve substantially the same result, in substantially the same way, as the Patent.

32. Therefore, it is my opinion that the Product does not vary from the Patent, as defined in claim 1, in a way that is immaterial. It follows that, as the scope of claims 12 and 16 are substantially the same as that of claim 1, I have a similar opinion with respect to these claims also.

Opinion

33. It is my opinion that the Product as specified in the request does not fall within the scope of claim 1, 12 or 16 as a matter of normal interpretation, nor does the Product vary from the Patent in a way that is immaterial. Accordingly, it is my opinion that Product does not infringe GB 2477599 B under Section 60(1)(a) or Section 60(2) of the Act.

Application for review

34. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

Sean OConnor

Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.