

OPINION UNDER SECTION 74A

Patent	GB 2423365 B
Proprietor(s)	Richard John Wragg
Exclusive Licensee	-
Requester	Barker Brettell
Observer(s)	-
Date Opinion issued	14 November 2022

The request

1. The comptroller has been requested by Barker Brettell (the Requester) to issue an opinion as to whether GB 243365 B (the Patent) is valid with respect to nine prior art documents that were submitted with the request.

2. The Patent was filed 21st October 2005 having an earliest priority of 26th January 2005. The Patent was granted 24th February 2010 and remains in force. The Patent was subject to previous Opinion 04/22.

3. The prior art documents submitted with the request are;

D1 Correspondence dated 3rd June 2021 from Briffa intellectual property and information technology lawyers (Briffa), representing HWM-Water Ltd, to the Requester.

D2 Correspondence dated 8th November 2021 from Briffa to the Requester.

D3 DE 03443130 A1

D4 US 2005/072469 A1

D5 US 4962370 A

D6 US 5699049 A

D7 US 6786091 B1

D8 WO 2001/014653 A1

D9 An online news article, entitled 'Keep an eye on performance', dated 1st September 2003; also provided in D1.

4. No observations have been filed.

Preliminary matters

5. The request is unusual in so much as rather than provide a written statement relating to the validity of the Patent with respect to the prior art, the Requester relies on written correspondences from the third party Briffa with whom the Requester appears to believe is infringing the Patent.

6. The request, in the absence of any reasoned argument in regard to inventive step, is restricted to novelty.

7. D1 is composed of;

- a. A covering letter outlining why the Patent is invalid with respect to an ultrasonic sensor (SonicSens) device and a data logging (Multilog) device presently produced by HWM-Water, and previously produced by Radcom.
- b. Annex 1 concerning a letter of undertaking.
- c. Annex 2 comprising;
 - i. A review of claim 1 of the Patent with respect to the evidence provided in D1.
 - ii. Appendix 1 SonicSens brochure (undated).
 - iii. Appendix 2 SonicSens instruction manual dated 2004.
 - iv. Appendix 3 Multilog brochure (undated).
- d. Annex 3 concerning a Radcom datalogging system price list dated 2003.

8. The request does not ask me to consider the covering letter or the letter of undertaking and therefore these documents have been set aside for the purpose of this Opinion. Furthermore, Annex 3 references the Multilog device only. As the Opinion is concerned exclusively with the consideration of novelty, and as Annex 3 does not reference the SonicSens device it has no relevance to this Opinion.

9. D2 is a further correspondence from Briffa to the Requestor. D2 is composed of;

- a. A covering letter outlining why the Patent is invalid with respect to the SonicSens device and the Multilog device. The covering letter additionally asserts that the Patent is invalid with respect to an IETG HawkEye (HawkEye) device.
- b. Annex 1 SonicSens brochure dated 27th September 2002.
- c. Annex 2 comprising;

- i. A copy of the online news article entitled '*Keep an eye on performance*', dated 1st September 2003.
- ii. An extract from *Water Active* entitled '*Yorkshire water takes a HawkEye view on pollution*', dated 1st February 2006.
- iii. An extract from House of Commons science and technology 8th report, Appendix 6, entitled '*Note of the visit to Yorkshire water dated 13th December 2005*'.
- iv. Wastewater planning users Group (WaPUG) Spring conference Coventry 2005 paper entitled '*Sewer Asset Management Through Long Term CSO Monitoring*'.
- v. British Approvals Service for Electrical Equipment in Flammable Atmospheres (BASEEFA) test certificate dated 26th November 2004.

10. D2(b) is similar to D1(b)(i) however the latter is dated. D2(c) (ii), (iii) were published after the priority date of the Patent and therefore have been set aside. Similarly, whilst dated 2005, I am unable to ascertain whether D2(c)(iv) was published before the priority date and therefore I have set this document aside. D2(c)(v) merely replicates test certificates that are present in D1(c)(ii).

11. The submitted prior art D3-D8 were cited in the 'X' category during the initial search dated 14th June 2006. Rule 94 reads;

94.—(1) The comptroller shall not issue an opinion if—

(a) the request appears to him to be frivolous or vexatious; or

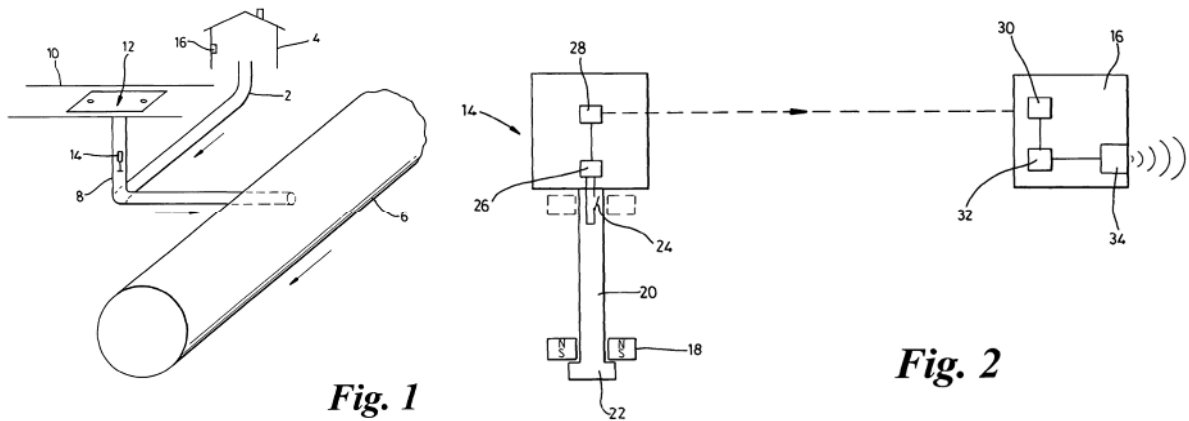
(b) the question upon which the opinion is sought appears to him to have been sufficiently considered in any relevant proceedings.

12. A request for an opinion on validity which argues on the basis of prior art that was cited as category "X" or "Y" in the search report, or as part of a substantive objection at any other time in the examination procedure, is, other than in exceptional circumstances, unlikely to clear the hurdle of raising a new question or argument. In the absence of any narrative relating to the relevance of D3-D8, that may form the basis of a new question, I have set these documents aside.

The Patent

13. The Patent is entitled '*Drain blockage warning system capable of sending a warning directly to a mobile phone*' and relates to a device and method for detecting a blockage in a drainage system and transmitting a signal over a mobile telephone communications network. The Patent provides an early warning of a possible downstream blockage in a pipe.

14. The device, illustrated in figures 1 and 2 below, comprises a detection unit 14 having a means for detecting rising fluid level in a drainage system, arranged in the drainage system, and a transmitter 28 configured to transmit a signal.



15. In the embodiment illustrated above the means for detecting rising fluid is provided by a magnetised captive float 18 that actuates a switch 24 when lifted by rising fluid levels in the drainage system. Actuation of the switch is received by a processor 26 and a signal is transmitted by transmitter 28 to a remote unit 16, such as a mobile telephone.

16. The patent has independent claims 1 and 10 relating to a system and method respectively. The claims read;

1. *A warning system comprising a detection unit arranged to be located within a drainage system, the detection unit comprising a detection device and a transmitter, wherein the detection unit is arranged to detect a rising fluid level in the drainage system and in response to transmit a warning signal over a mobile telephone network to a warning device which comprises a mobile phone.*
2. *A system according to claim 1, wherein the detection device is located at a predetermined depth in the drainage system.*
3. *A system according to claim 2, wherein the detection device is arranged to detect a fluid level reaching a predetermined depth in the drainage system.*
4. *A system according to any preceding claim, wherein the detection device comprises a magnetic float and a switch.*
5. *A system according to claim 4, wherein the magnetic float is arranged to rise with the level of the fluid and to switch the switch when it reaches a predetermined level.*
6. *A system according to claim 4 or claim 5, wherein the detection unit comprises a further switch to enable different levels of fluid in the drainage system to be detected.*
7. *A system according to any claims 4 to 6, wherein the transmitter is arranged to transmit the warning signal on switching of the switch, or one of the switches.*
8. *A method of detecting a blockage in a drainage system, comprising detecting a rising fluid level in the drainage system and transmitting a*

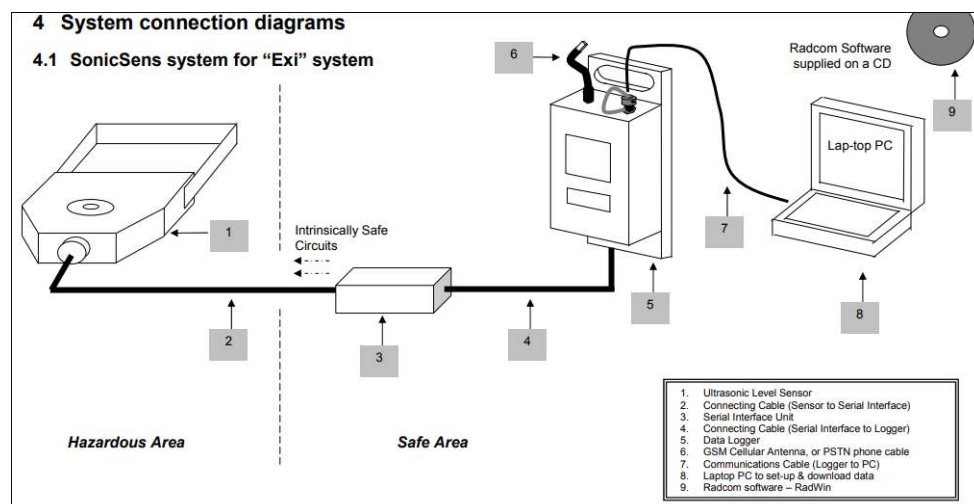
warning signal in response thereto.

9. A system according to claim 8, wherein the warning is a text alert.
10. A method of detecting a blockage in a drainage system, comprising detecting a rising fluid level in the drainage system by a detector unit and transmitting a signal in response thereto, over a mobile telephone network.
11. A method according to claim 10, further comprising the warning device issuing a warning.
12. A blockage warning system substantially as hereinbefore described with reference to the accompanying drawings.
13. A method of detecting a blockage substantially as hereinbefore described with reference to the accompanying drawings.

The prior art

17. The SonicSens device and HawkEye device both appear to have been made public prior to the date of the Patent with reference to the SonicSens instruction manual dated 2004 provided in D1 and the news article dated 2003 entitled 'Keep an eye on performance' provided in D2, at least.

18. The SonicSens device is an ultrasonic level sensor which is powered by the MultiLogPlus data logger device. A typical application, as disclosed in D1, of the SonicSens device is in a combined sewer outflow (CSO) monitoring role. Where, referring to the extract from D1 below, the SonicSens device ultrasonic level sensor 1 is mounted on a wall of a sewer chamber and is hardwired to a data logger 5, such as a MultiLogPlus device. The MultiLogPlus device is configured to communicate to a lap-top PC.



19. The HawkEye device is described in D2(c)(i) which reads;

"The HawkEye CSO monitor is the first device of its type to be fully safety tested and certified to the new ATEX standards for installation in the

potentially explosive environment of a CSO chamber. Using HawkEye reduces civils costs as it requires no additional power or telecommunication connections, road cuts, pavement-mounted pillars or cabinets.

In addition, the use of a non-contact ultrasonic sensor means maintenance visits and fouling problems are minimised. HawkEye's communication structure has been designed to integrate with already established asset monitoring and alarm systems in place within the corporate Scada system. Using the integral GSM modem, CSO performance data can be interrogated through the existing system. Parallel data management streams and operational alarm handling logistics have been avoided because water companies have existing systems to manage their assets."

Claim construction

20. Before considering the documents put forward in the request I will need to construe the claims of the Patent following the well-known authority on claim construction which is Kirin-Amgen¹. This requires that I put a purposive construction on the claims, interpret it in the light of the description and drawings as instructed by Section 125(1) and taking account of the Protocol to Article 69 of the EPC. Simply put, I must decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean.

21. Section 125(1) of the Act states that:

For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.

22. And the Protocol on the Interpretation of Article 69 of the EPC (which corresponds to section 125(1)) states that:

Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.

23. I consider the person skilled in the art to be a designer and manufacturer of

¹ Kirin-Amgen and others v Hoechst Marion Roussel Limited and others [2005] RPC 9

drainage monitoring systems including associated telematics.

24. During the Opinion 04/22 there was a single point of contention in relation to claim construction which was restricted to the passage of claim 1 that read '*...and in response to transmit a warning signal over a mobile telephone network...*'. It was my understanding whilst drafting Opinion 04/22 that, at the time of filing of the patent, a mobile telephone network would include any known local area network (LAN) or wider area network (WAN) and would include relevant intermediary devices such as terminals, processors and servers where necessary. I was unable to identify anything in the Patent that would justify deviating from a normal interpretation of the term that could limit its scope to a direct communication link between a transmitter, associated with a detector unit, and a warning device or other end terminal.

25. There has been no contention over how the remainder of claims 1 or 10 ought to be construed. However there is a further aspect that I would like to clarify my position on; whilst figure 2 of the Patent embodies the invention as a unitary housing comprising both the detection device and the transmitter components, the claims are not limited to this embodiment. Claim 10 has no limitation in respect to a collocation of the detection device and transmitter, and claim 1 merely requires the detection unit, inculcating both the detection device and transmitter components, to be suitable for collocating in a drainage system. Therefore the scope of the claim includes an integrated detection unit comprising both a detection device and transmitter component, it similarly includes a non-integrated detection unit comprising discrete components.

26. There is no contention over how the remaining dependent claims ought to be construed and I find the language of the claims plain, presenting no particular issue, issues regarding construction.

27. Claims 12 and 13 are 'omnibus' type claims. 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.

28. 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 drawings would seem to have, at the very least, features that are substantially identical to those features set out in claims 1 and 10.

Novelty – the law

29. Section 1(1)(a) of the Act reads:

A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -

(a) the invention is new;

30. The relevant provisions in relating to novelty are found in section 2(1) and section 2(2) which read:

An invention shall be taken to be new if it does not form part of the state of the art.

The state of the art in the case of an invention shall be taken to comprise 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 other way.

Whether the claims are novel in light of the SonicSens and Multilog devices in combination, or the HawkEye device

31. Although the request is not clearly set out, it appears that the Requester asks whether the Patent is novel with respect to the Multilog and SonicSens devices disclosed in D1 and D2, and/or the IETG HawkEye device disclosed in D2. No

specific argument relating to the novelty of claims 1 and 10 of the Patent with respect to the MultiLog and SonicSens devices and/or the IETG HawkEye device are provided by the Requester.

Claims 1, 10, 12 and 13

32. D2(b) clearly shows the SonicSens device and associated MultiLogPlus device fixed to a drainage system wall. The SonicSens device takes ultrasonic level measurements at 1 minute intervals and the MultiLogPlus device is configured to transmit a warning to a PC, mobile phone or pager over a cellular GSM communications network.

33. Therefore the combination of SonicSens and MultiLog clearly discloses a CSO warning system having a detection system (SonicSens), transmitter (MultiLog) and receiver unit (Mobile phone, or pager) clearly demonstrating that claim 1 and claim 10 is not new. Similarly, for the reasons set out at paragraph 28 above, claims 12 and 13 are not new.

34. The discussion of the HawkEye device in D2(c))(i) is brief, however the context of the disclosure relates to measuring levels in a CSO chamber using an integrated sensor, datalogger, and means by which an alarm may be generated during CSO performance monitoring via a GSM modem. The HawkEye device therefore demonstrates that claims 1, 10, 11, 12 are not new.

Claims 2 and 3

35. The SonicSens device relies on an ultrasonic level sensor, the requestor argues that such a sensor may be set at any suitable depth and programmed to detect water height accordingly. The Requester further alleges that the ultrasonic sensor of the SonicSens device is not required to be placed at a predetermined depth in the drainage system.

36. It is my understanding that the SonicSense would utilise a sensor that is suitable for the purpose of measuring water level in a CSO. I also understand that typical ultrasonic level sensors are provided for discrete ranges, and it is simply not possible to programme any ultrasonic level sensor to operate at any given range. D2(1) explicitly states that SonicSens is operable between a range of 300mm to 1 meter, and 500mm to 2.25 meters the ultrasonic sensor disclosed with respect to the SonicSens device must therefore be fixed within a predetermined range; the upper/lower limit being a predetermined depth as required by claim 2. In light of this claims 2 and 3 are not new.

37. Similar consideration is given with respect to the HawkEye device; it is implied that the non-contact ultrasonic sensor would be operable within a particular range and this range would be bound by a predetermined upper and lower limit. Therefore claims 2 and 3 are not new with respect to the HawkEye device.

Claims 4-7

38. The SonicSens device and HawkEye device rely on ultrasound technology therefore the subject matter of claim 4 is new with respect to the SonicSens and

MultiLog devices. It follows that Claims 5-7 which are appended to claim 4 are similarly new due to their dependency.

Claims 8 and claim 11

39. The Requestor has not submitted any observations with respect to claims 8 or 9 nor do they make any substantial argument with regard to claim 11.

40. D2(1), however, reads;

“The ultrasonic sensor is powered from batteries within a MultiLogPlus™ data logger, which can be supplied with local or telemetry communications. Standard telephone line (PSTN) or cellular (GSM) communications versions can be configured to provide data and alarms to office PC or mobile phone / pager for investigation and action.”

41. It is therefore explicit from D2(1) that the MultiLog device transmits a signal which is received as an alarm at an end terminal, for instance a PC, mobile phone or pager. Thereby demonstrating that the features of claims 8 and 11 are not new. The HawkEye device is similar with respect to generating an alarm, however the end terminal is not specified. Nevertheless the integration of an GSM modem in the HawkEye device clearly implies the features of claims 8 and 11.

42. Furthermore, pagers are typically configured to exclusively receive text alerts and therefore claim 9 is implied in D2(1).

Opinion

43. It is my opinion that claims 1-3, 8-13 of the Patent are invalid with respect to D2 at least in relation to the disclosure of the SonicSens and MultiLog devices.

44. It is also my opinion that claims 1-3, 8, 10-13 of the Patent are invalid with respect to D2 at least in relation to the disclosure of the HawkEye device.

Application for review

45. 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 O'Connor
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.