

OPINION UNDER SECTION 74A

Patent	EP 1579399
Proprietor(s)	WISEUM (UK) Limited
Exclusive Licensee	
Requester	Carpmaels & Ransford
Observer(s)	Viseum (UK) Limited)
Date Opinion issued	14 May 2014

The request

1. The Comptroller has been requested to issue an opinion as to the validity of EP 1579399.
2. The requestor has provided reference to three documents for my consideration:-
 - A1 "Capturing and Presenting Shared Multi-Resolution Video"
Kimber et al, 3rd July 2002
 - A2 "FlyCAM: Practical Panoramic Video and Automatic Camera Control"
Kimber et al, 2000.
 - A3 US 6215519
3. The requestor has drawn my attention to the FlySPEC camera. Document A3 was cited by the EPO during the prosecution of the patent before them.
4. The request is in two parts. Firstly, that Claim 1 is not novel in view of the FlySPEC camera which is illustrated in documents A1 and includes the FlyCAM of document A2 and secondly that claim 1 lacks an inventive step taking into account the disclosures of document A3 and the FlySPEC camera seen in document A1. The same arguments are applied to the method set out in claim 9
5. The request was filed by Richard Jackson representing Carpmaels & Ransford on 26th February 2014. Observations were received from Mr Stuart Thompson, president of the Viseum Group the current proprietor of the patent on 28th March 2014. Further observations in response were received from Mr Jackson on 14th April 2014. I am grateful to both Mr Jackson and Mr Thompson for their observations which have been helpful in forming my opinion.

The Claims

6. The English language versions of claim 1 and claim 9 of EP 1579399 read:

Claim 1

A surveillance device

- (1) having at least one first image collection device,*
- (2) at least one second image collection device,*
- (3) the or each second image collection device having a respective servo motor,*
- (4) the second image collection device having an optical axis whereby the servo motor is arranged to regulate the direction of the optical axis of the second image collection device,*
- (5) wherein the second image collection device is controlled by processor means to observe the location where movement is detected by a first image collection device*

characterised in that the surveillance device comprises:

- (6) A support constructed and arranged to be secured to a structure, wherein the support defines plural mounting sockets for at least one first image collection device, the sockets being disposed regularly and circumferentially about an axis of the support, the or each first image collection device being thereby fixedly secured to the support*
- (7) Wherein the, or each second image collection device is rotatable about the support axis by the servo motor.*

(Integer References added)

Claim 9

A method of watching over an area using a surveillance device having a first spatially fixed image collection device and a second image collection device having a movable field of view, the device having an output for image data, the method comprising using the first image collection device to observe the area and automatically processing data from said first image collection device to detect movement; upon detection of movement, transferring signals from the first image collection device to the output, said signals representative of an image of at least a location where said movement takes place, and automatically controlling the field of view of the second image collection device to observe the location where said movement takes place; and, transferring signals from said second image collection device, said signals being representative of an image of said location where said movement takes place at least whilst said movement is detected

wherein the surveillance device comprises:

A support constructed and arranged to be secured to a structure, wherein the

support defines plural mounting sockets for at least one first image collection device, the sockets being disposed regularly and circumferentially about an axis of the support, the or each first image collection device being thereby fixedly secured to the support, wherein the or each second image collection device is rotatable about the support axis by the servo motor; and

The method further comprises selecting sockets according to the application of the surveillance device and inserting cameras in the number needed for the application intended to the selected sockets.

7. Figure 2 of the granted patent is particularly useful in understanding the device

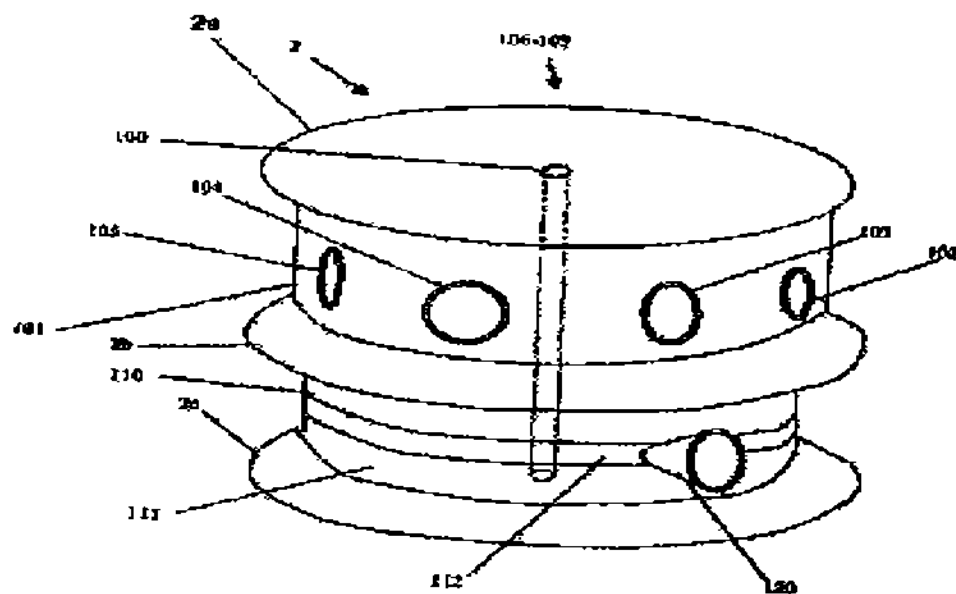


FIGURE 2

Claim construction

8. 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-Amgen and others v Hoechst Marion Roussel Limited and others* [2005] RPC 9. This requires that I put a purposive construction on the claims, interpret them in the light of the description and drawings as instructed by Section 125(1) and take 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.
9. 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.

10. 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.

11. Claim 1 sets out the construction of a surveillance device. It has at least one first image collection means (105) to detect movement in a location and on detection of movement uses a processor to control a servo motor to move a second image device (120) to observe the location.
12. I take the term “surveillance” in a broad sense. In that regard it is a system that watches or monitors an area of interest. I note that many dictionary definitions limit the watching or monitoring to prevention of a crime. I do not think this alters my view and in this context it is a system for monitoring an area and that is capable of detecting movement
13. The term imaging devices requires no further construction. The specification refers in many places to cameras and as a result, the reader is left in no doubt as to how to interpret the term image collection device.
14. The claim refers to the “optical axis” of the second device which I do not believe requires any further interpretation given that is a standard term in the art¹.
15. The claim makes particular reference to the support of the first mage collection devices. These devices are mounted in sockets that are mounted “regularly and circumferentially” around an axis of the support. Whilst “regularly” is a term that can be seen as indeterminate in meaning in some circumstances I do not believe that this is the case here. Similarly, I do not believe “Circumferentially arranged” presents any problem of interpretation. I take these terms to mean that the first imaging devices are located at spaced locations on a perimeter of the device. In the specific embodiment of the specification this is a circular perimeter and the term

¹ See http://en.wikipedia.org/wiki/Optical_axis

“circumferentially” is clearly the best way of describing such a perimeter.

16. The claim also specifies “a support constructed and arranged to be secured to a structure”. Looking at paragraph 0012 of the specification the support appears to be the wall between the circular plates 2a & 2b spaced apart on a central column (100). It is this wall that supports the sockets for mounting the first imaging devices.
17. This raises a question about what is understood by the term “socket”. The specification at paragraph 0012 makes clear that the device contains electrical connections in each socket to allow communications. It also includes blanking plates covering each socket which can be removed and the cameras inserted when needed. The term socket is widely used in the English language and is usually taken to mean a hollow into which something can be inserted e.g. a plug socket or can revolve in e.g. a ball and socket joint. To my mind the socket must therefore be interpreted as a pre-prepared housing for an imaging device within in the socket. I consider this makes clear that the drafter of the patent specifically intended for the imaging device to be inserted into the socket.
18. I also consider that the “axis of support” requires some explanation. I take this to mean a vertical line that forms the central axis of the device. In the specification it is embodied as a central column (100) but I do not believe that it needs necessarily to be a physical entity. Specifically, the support of the claims is the wall in which the sockets are formed. This wall is mounted between two circular plates of which the centre point forms the axis. Similarly, the second device is required only to rotate about the axis. In reality, the second device is moved along a slot in a further support wall between the two circular plates 2b & 2c. As with the first imaging device support it shares the same axis of the support. Given the specification and the drawings I find it difficult to come to any other conclusion.
19. The method of claim 9 presents no further difficulty in understanding how the system works. Put simply, the first imaging device detects movement in a location whereupon an output signal is produced that allows the second imaging device to be moved to a position to observe the same area. I do not believe that any further construction is required in regard to claim 9 and the same constructional limitations of claim 1 apply.

Novelty of Claim 1 and Claim 9

20. The requestor relies on the FlySPEC camera to question the novelty of the granted patent. In support of this he has provided two documents for consideration. Document A1 is the primary source and within it refers to the FlySPEC hybrid camera. As the introduction to the document states this name is derived from the FlyCAM of document A2. The requestor has suggested that by mention of the camera and the inclusion of the reference I should take the FlySPEC camera to incorporate the features of FlyCAM panoramic camera. Later in his request he makes it clear that he considers claim 1 to lack novelty in view of the “disclosure in A1 which incorporates the disclosure in A2”.
21. In effect, the requestor is asking me to consider both these documents as if they were one. Needless to say, it is essential that I come to a view on this as it will have a determining effect on how I evaluate the validity of claim 1.

22. That said, I do not think there is an issue here. Document A1 makes it quite clear that the panoramic camera is the FlyCAM of document A2 to which is added the Pan-Tilt-Zoom (PTZ) camera. To my mind the skilled man would read document A1 as if it incorporated document A2. It would be no different to a patent specification referring to an existing product being used as part of a new apparatus.
23. It is clear to me that the FlySPEC camera also falls within the realms of a surveillance device. The FlySPEC camera has a particular use in the field of video conferencing where the first camera maintains a panorama or field of view with the second camera being able to move and zoom into areas of interest, In one specific embodiment it is made clear that the camera can detect movement in an area and zoom in on that area. (See Fig 6, Document A1)
24. Figure 1 of Document A1 illustrates the FlySPEC camera and when read in conjunction with the rest of that document it is clear that there is at least a first image collection device (1) and a second image collection device (2). The first device is the FlyCAM device of document 2 which stitches together video from the two wide angle cameras to form a panoramic view. Using frame-grabber hardware the second camera can then be pointed at a location within the view by mapping a region in the panoramic view into parameters to control the second camera. It would seem implicit that this would involve some form of servo motor since the PTZ camera has some form of drive for altering the pan, tilt or zoom functions. If I am wrong on this point then I believe the skilled man would in any case certainly appreciate that a servo motor is a convenient way to achieve the movement required and this would not render the claim inventive. Thus the FlySPEC camera reads onto integers (3) and (4) of the claim.
25. Integer (5) requires that the location to be observed is determined by detecting movement by the first image collection devices. To my mind it is clear that the final paragraph of page 7 of document A1 and the final paragraph of the introduction of document A2 make it clear that the second camera can be directed to observe an area where movement is detected. Fig 6 of document A1 emphasises this point.
26. Integer (6) requires a support constructed and arranged to be secured to a structure which also defines mounting sockets regularly positioned around the circumference of the support for the first imaging devices. I do not think there is any doubt given the images in document A2 that the device can be mounted to a structure in a secure manner. Indeed this is exemplified by the mounting of the PTZ camera to the upper surface in the FlySPEC embodiment.
27. The requestors view is that the mounting of the cameras in A2 on the faces of an octagon so that each camera is angled at 45° degrees to its neighbours discloses this. Given an octagon is a regular shape it is quite clear that they are regularly spaced. Furthermore as the cameras are on an external facing outward edge of the octagon I would also regard these as circumferentially mounted.
28. The question is whether these are mounted in sockets. Both documents A1 and A2 provide little or no detail for the mounting of the cameras. A2 in the right hand column of page 1419 describes the cameras mounted on "the faces of an octagon". I do not believe this can be considered to a socket arrangement. For it to be a socket the camera would have had to be located or inserted into the octagonal face and not

mounted upon it. Looking at Fig 1, in document A1 and Fig 1 in A2 neither of these to my mind shows a camera mounted in a socket. Whilst I recognise the efforts of the requestor to describe this arrangement as a socket I find myself agreeing with the observer that this does not fall within the common understanding of a socket. As a consequence of this the FlySPEC camera is not considered to show integer (6).

29. There is also the question of whether the FlyCAM and FlySPEC show an axis of support. Neither A1 nor A2 make any mention of a central axis and certainly the figures provide no details of any such support. However, the image of the FlySPEC camera would suggest that there is a common axis between the FlyCAM assembly and the PTZ camera that is mounted on top. To my mind there is an axis of support.
30. I do not need to go into any great detail with regard to the method of claim 9. As with the above discussion the method relies on first imaging device being inserted into sockets and rotation of the second device about a central axis. Since these are not present in either document A1 and A2 then claim 9 would also appear to be novel over the cited prior art.
31. On that basis it is my opinion that claims 1 and 9 of EP 1579399 are novel over the prior art cited by the requestor.

Inventive Step

32. The second part of the opinion request is whether Claim 1 lacks an inventive step in the light of the FlySPEC camera and the document US 6215519. In making his request, the requestor has provided a full history of prosecution of the application before the EPO. In his comments he makes it clear that the EPO found the patent inventive over US6215519 by virtue of the socket features in claim 1 and that these were the distinctive features.
33. Whilst the correspondence of the EPO may be of use in some cases I am not sure it is of any great assistance to me here given that I must follow UK law. In the UK the law to determine whether or not an invention defined in a particular claim is inventive over the prior art and that which I must follow is set out in *Pozzoli SPA v BDMO SA [2007] EWCA Civ 588*, in which the well known Windsurfing steps were reformulated:
 - (1)(a) *Identify the notional "person skilled in the art";*
 - (1)(b) *Identify the relevant common general knowledge of that person;*
 - (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, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.*
34. The skilled person in the art is the designer of surveillance devices. In that role their common general knowledge would include the use of PTZ and wide angled cameras for the surveillance and monitoring of an area of interest.

35. The inventive concept of the claims lies in the combination of the two types of cameras and using the output of the first camera to control the movement of the PTZ camera. There is also an additional concept involved in the mounting of the first imaging devices in sockets located in a support.
36. The state of the art is exemplified by the FlySPEC camera seen in documents A1 and A2 in addition to US6215519. I have already discussed A1 and A2 in some depth with regards to the novelty aspect of this opinion. As I have already stated these documents differ from the patent in that they do not provide sockets for the first imaging devices.
37. US6215519 describes a combination of a wide angle camera and PTZ camera in which the wide angle camera controls the PTZ camera using movement detection. Fig 4 of this application is perhaps the most pertinent as it shows the two cameras as part of one assembly. This arrangement is considered to show that the PTZ camera is mounted on a common axis to the first camera so that it rotates about the axis. It is also quite clear that US 6215519 does not show any sockets for the first imaging devices.
38. This clearly leaves the socket arrangement as the difference between the state of the art and the invention set out in the granted patent in question.
39. A key point in determining whether there is an inventive step is the use of the devices. The main use of the FlySPEC camera is in video conferencing systems whereas US 6215519 it is clearly in the field of area surveillance. The observers view is that the field of teleconferencing is somewhat removed from the intended operation of the device of the patent. However, I do not think this is a view I can accept in this instance. As I have said above, it is clear from Document A1 that the FlySPEC camera can be used to monitor an area and when it detects movement to move the second camera to a position where it can then zoom in on that area. To my mind this means that the FlySPEC is a surveillance device.
40. This leaves the key issue as whether the idea of mounting the first imaging devices in sockets is inventive or not? To my mind I consider that it does involve an inventive step over the prior art. There is no hint or indication in the prior art that I can see as to why the skilled person would consider modifying either the FlySPEC camera or arrangement in US 6215519 to include sockets without exercising some inventive ingenuity. To conclude otherwise would require ex-post facto analysis which is not permitted.
41. To my mind the sockets provide a degree of utility that is not envisaged in any of the prior art, specifically that the sockets facilitate installation and variations in arrangements or numbers of imaging devices that may be used. This allows any combination of cameras as emphasised in paragraph 0009 of the specification.

Conclusion

42. It is my opinion that claims 1 and 9 of EP1579399 are both novel and inventive over the prior art raised by the requestor.

Nigel Hanley
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.