

OPINION UNDER SECTION 74A

Patent	GB 2545799 B
Proprietor(s)	Akron Brass Company
Exclusive Licensee	
Requester	Delta Fire Limited
Observer(s)	Mathys & Squire
Date Opinion issued	21 May 2018

The request

1. The comptroller has been requested by Delta Fire Limited (“the Requester”) to issue an opinion on the validity of Patent GB 2545799 B (“the Patent”) in the name of Akron Brass Company. In particular, the requester has argued that the Patent is not novel or inventive based on prior use, in light of an invalid priority claim, and references an Akron Brass sales leaflet, Akron catalogue, a video and a Facebook page. The requester also states that the Patent is not novel or inventive based on a number of documents detailing nozzle products and also patent documents. Furthermore, claim 1 of the Patent is said to add matter.

Observations

2. Observations were received Mathys & Squire (“the observer”). These observations stated that the request for an opinion should be refused (at least in part) and noted that, in any case, the claims of the patent are not anticipated by or obvious in light of the references, products and documents filed by the requester.

Observations in reply

3. Observations in reply were submitted by the requester including three further Annexes providing information regarding the prior use and products submitted in the request. The requester also requests their right to be heard should “a detailed review of the matter concerning the invalid priority, the prior use, the lack of novelty and lack of inventive step not be independently reviewed”.

Further Observations

4. The observer also submitted further observations regarding the observations in reply. I note that I am under no obligation to consider these further observations.

Preliminary Matters

5. During pre-grant examination of the Patent, third party observations (TPO's) were filed which argued that the claims (the same as now granted) were not novel or inventive based on the prior use references, the product documentation and the patent documents which have now been submitted in the opinion request. The only documentation in the opinion request not referenced in the TPO's are US 2001/0020650 (LANTARI) and US 7124965 (CHEN). The TPO's also contained the same arguments that the claim to priority was invalid and that claim 1 added matter.
6. The established practice of the Office¹ is that an opinion request must raise something new, rather than merely seeking to cover old ground. In particular the opinion request should raise a new question. It is not appropriate to revisit in an opinion any question that has clearly been considered during examination.
7. I believe that the grounds for invalidity detailed in the request for the opinion raises no new question – except for the question of novelty and inventive step based on new documents US 2001/0020650 (LANTARI) and US 7124965 (CHEN). Indeed, large parts of the Requester's statement are identical to the TPO's, and I believe that it is reasonable to assume that the examiner sufficiently considered the issues and documentation in the TPO's during the pre-grant examination process. Furthermore, there does not appear to be any exceptional circumstances which warrant re-consideration of the issues raised in the TPO's.
8. I note that a further three documents were provided by the Requester in the observations in reply. The first of these documents is the Facebook page which was referenced in both the TPO's and the Requester's statement. No new question arises from actual submission of this document - the question of prior use and its date were raised in the TPO's. The second document is a series of pictures taken of the actual nozzle referred to as the "UK Royal Navy Nozzle". In the TPO's and Requester's statement a number of technical drawings of this nozzle were submitted. There is no information in the pictures that was not present in the technical drawings. Thus no new question arises from submission of these pictures. The third document is allegedly a series of pictures of an Akron Brass 4393 nozzle which was previously shown in the TPO's and Requester's statement in the form of photos and technical drawings. Again there appears to be no new question here as the nozzle and its date of disclosure can reasonably be assumed to have been considered following the comments, photos and drawings is in the TPO's.
9. I would also note that if I am wrong regarding whether the three documents provided in the observations in reply raise a new question, then the observations in reply contain additional evidence/arguments which are not "strictly in reply" as required by the rules governing the opinions procedure.
10. Consequently, in this opinion I will only consider whether the Patent is not novel or inventive based on US 2001/0020650 (LANTARI) and US 7124965 (CHEN).

¹ See decisions BL O/370/07, BL O/289/07 and BL O/298/07

11. This obviously is less than the requester has asked for and I am mindful that in his request they refer to their “right to be heard” if the opinion did not include a full review of the issues raised in the request. Of relevance to this point are sections 74A(6) and 101 which read as follows:

Opinions on matters prescribed in the rules

74A(6) In relation to a decision of the comptroller whether to issue an opinion under this section –

(a) for the purposes of section 101 below, only the person making the request under subsection (1) above shall be regarded as a party to a proceeding before the comptroller; and

(b) no appeal shall lie at the instance of any other person.

Exercise of comptroller’s discretionary powers

101. Without prejudice to any rule of law, the comptroller shall give any party to a proceeding before him an opportunity of being heard before exercising adversely to that party any discretion vested in the comptroller by this Act or rules.

12. These provisions provide for the right of appeal, including a hearing, where the comptroller is minded not to issue an opinion. That right of appeal does not in my view extend to the issues to be considered in an opinion that the comptroller is minded to issue. In particular I do not believe it was ever the intention for the examiner to have to offer a hearing before exercising his judgement as to what to cover in any opinion he is drafting. To have to do so could significantly undermine a service that is intended to be low cost and quick. Hence I believe I can exercise my discretion not to consider all the material referred to by the requestor for the reasons I have set out above, without having to offer the requestor a hearing.

The Patent

13. The Patent was filed on 30 January 2015, claiming an earliest priority date of 30 January 2014, and was granted on 13 December 2017. It relates to a nozzle for a hose, such as those often used for firefighting, in which an operator can select between a straight ahead fluid stream (see fig 2B) and substantially perpendicular fluid stream i.e. a radial stream or wall of water (see fig 1B).

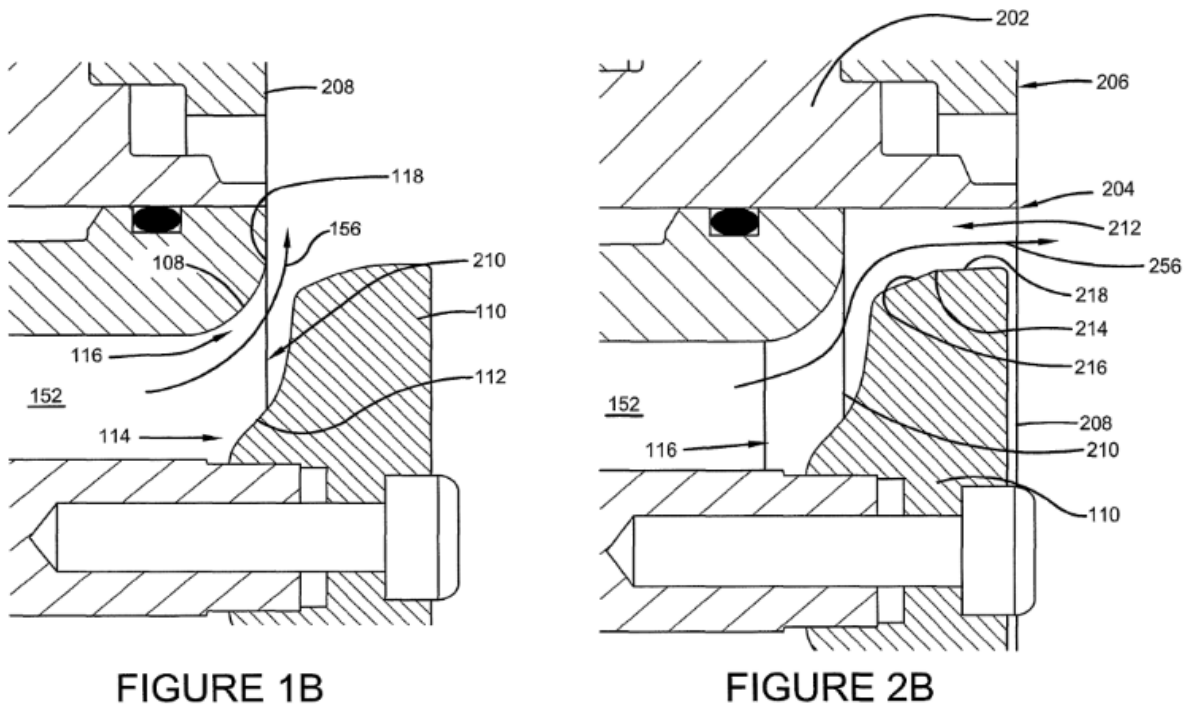


FIGURE 1B

FIGURE 2B

14. The Patent has only a single independent claim. Claim 1 reads:

A fluid discharge nozzle comprising:

- a nozzle body;
- a discharge tube operably engaged with the nozzle body;
- a pattern sleeve, with an inner wall, operably engaged with the discharge tube, the pattern sleeve configured to selectably translate along an axis of nozzle fluid flow between a retracted position and an extended position; and
- a baffle head operably engaged with the nozzle body and disposed in relation with the discharge tube to form a discharge opening, the discharge opening configured to direct an output flow of fluid substantially perpendicular to the axis of nozzle fluid flow when the pattern sleeve is disposed in the retracted position;
- and wherein the baffle head comprises a convex shape arranged to form a converging channel with the inner wall of the pattern sleeve when the pattern sleeve is extended, wherein the converging channel is configured to direct an output flow of fluid substantially parallel to the axis of nozzle fluid flow.

Claim Construction

15. Before considering the two documents identified in the request I need to construe claim 1 of the Patent, that is to say I must interpret it 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. Ultimately the question is 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*² and the Court of Appeal in *Actavis v*

² *Generics UK Ltd (t/a Mylan) v Yeda Research and Development Co. Ltd & Anor* [2017] EWHC 2629 (Pat)

ICOS³.

16. I consider the person skilled in the art to be a designer or technician of hose devices.

17. In general I believe there is little difficulty in construing the claims. However, the feature of the “convex shape arranged to form a converging channel with the inner wall....wherein the converging channel is configured to direct an output flow of fluid substantially parallel to the axis of nozzle fluid flow” requires some consideration. Looking at the description and figures I note the arrow in fig 2B, and paragraphs 34 and 26 which state (respectively):

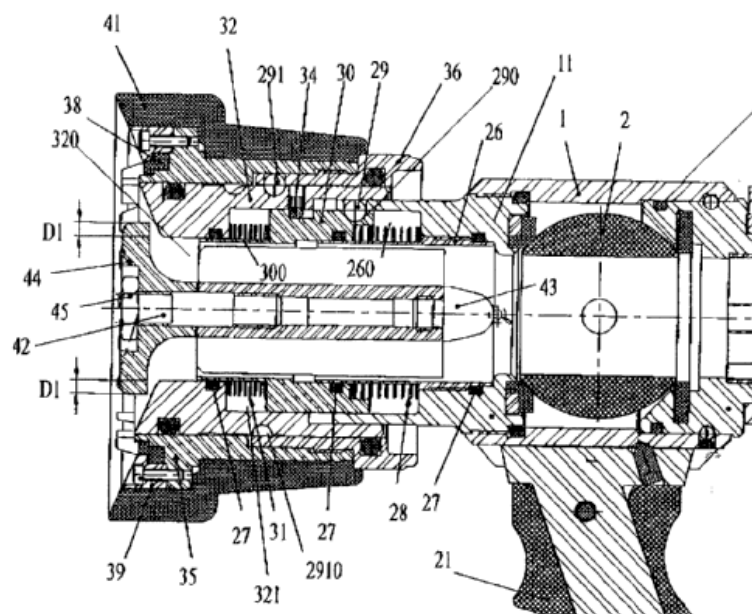
“...the baffle profile 214 may create a converging channel in conjunction with a wall of the pattern tube 212. As described above for the fluid discharge channel 116, a converging channel can cause fluid flow speed to increase, while fluid pressure decreases”

“...the fluid discharge channel 116 becomes narrower from a point where the fluid enters the fluid discharge channel 116....to where the fluid flow exits the fluid discharge channel 116.”

18. Thus it is apparent that the converging channel of claim 1 should be construed as becoming narrower relative to the flow of the fluid.

Prior art – D1

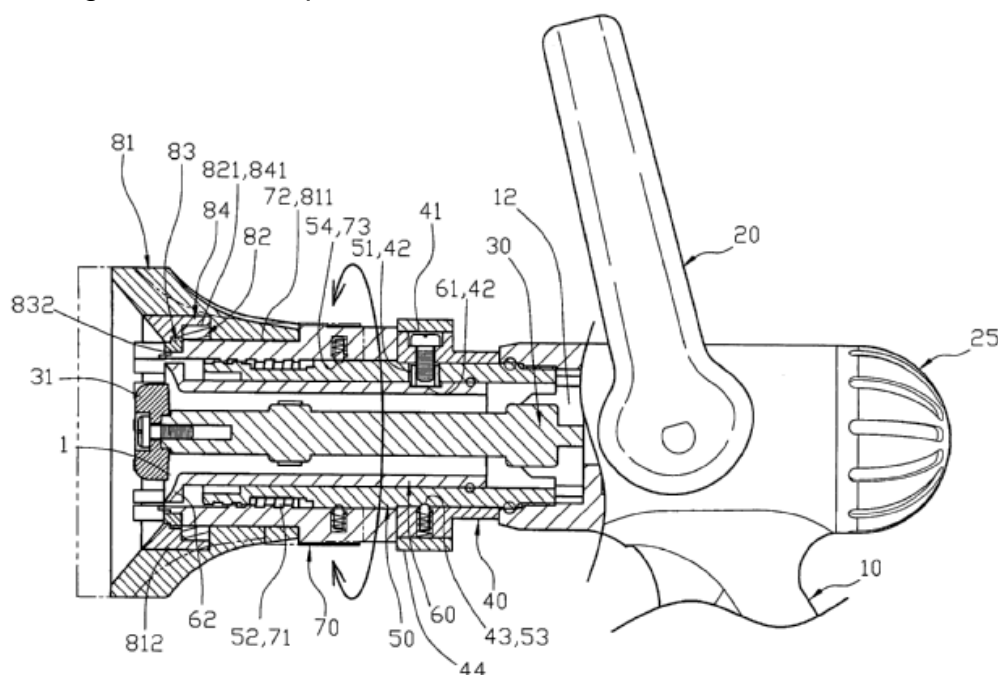
19. US 2001/0020650 A1 (D1) discloses a fire hose lance with a valve 44 which is fixedly mounted to body, and a piston 32 slidably mounted on the body. Movement of the piston 32 is caused, on the one hand, by the force resulting from the fluid's total pressure exerted on the surface D1 of the piston located opposite valve 44 and on the other hand, by the force exerted by restoring means 31 tending to neutralize the resulting force from the fluid pressure. Figure 1 of D1 is reproduced below.



³ Actavis Group & Ors v ICOS Corp & Eli Lilly & Co. [2017] EWCA Civ 1671

Prior Art – D2

20. US 7124965 B1 (D2) discloses a spraying gun including ring 40,44 which can be rotated to effect pushing of an inner control tube 60 to move in order to change the gap 1 defined between catch block 31 and end portion of inner control tube 60, so as to adjust diffusion angles and strength of the ejected water flow. Furthermore, a drive ring 70 can be rotated to change the distance between blades 832 of rotating ring 83 and the gap 1, so as to adjust the diffusion areas and intensity of water of the ejected water flow. Fig 7 has been reproduced below.



Novelty

21. In order for a claim to lack novelty, a prior art disclosure must clearly and unambiguously disclose all of the features of the claim. The requester has argued that both D1 and D2 disclose all the features of claim 1. In particular the requester notes that both documents disclose a baffle with a convex shape which is arranged to form a converging channel with inner wall. In D1 part of the baffle head is radiused to incorporate a convex shape with a diameter of D1. In D2 the distal edges of the baffle head are radiused and therefore incorporate convex shapes. The requester also notes that D1 and D2 fit within the wording chosen by the patentee - if part of the baffle head is convex it forms a converging channel.
22. The observer notes that the edges referred to by the requester are at the exit point of the nozzle in D1 and D2. They further note that these edges curve away from inner wall of the patten sleeve, so creating a diverging channel.
23. In my opinion the distal edge or edges of the baffles which form a convex shape in D1 and D2 do not form a converging channel with the inner wall of the pattern sleeve

based on the proper construction of claim 1. In particular, I believe that the requester has construed claim 1 literally – rather than construing the claim in light of the description and figures. The convex shape of the baffle in D1 or D2 at the distal end do not form a channel that becomes narrower relative to the flow of the fluid – indeed this forms a diverging channel.

24. I would also note that neither D1 or D2 appear to disclose directing an output flow *substantially perpendicularly* to the nozzle fluid flow, when the sleeve is in the retracted position. D1 discloses that the nozzle can produce a jet or cone, and D2 discloses that the nozzle has different diffusion angles (see figures 8&9) – but there is no disclosure of the nozzle directing a radial stream or wall of water.
25. Consequently, it is my opinion that claim 1 of the Patent is novel in light of D1&D2.

Inventive Step

26. The requester has also argued that the claims lack an inventive step in light of D1 and D2.
27. To determine whether or not an invention defined in a particular claim is inventive over the prior art, I will rely on the four step test established in *Pozzoli*⁴ which reformulated the well-known *Windsurfing*⁵ test. The Pozzoli steps are as follows:
 - (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.
28. I consider the person skilled in the art to be a designer or technician of hose devices. He or she would have a knowledge of nozzles and be aware of various different designs for the nozzles based on the requirements of the fluid output. In particular, I believe that he or she would be aware that baffles could have different shapes.
29. The inventive concept of claim 1 lies in a nozzle which has a baffle head and sleeve that can interact such that, when the sleeve is in a retracted position, the output flow of fluid is substantially perpendicular to the fluid flow in the nozzle and, when the sleeve is in an extended position, a convex shape of the baffle head forms a converging channel with the inner wall of the sleeve to direct the fluid flow parallel to the fluid flow in the nozzle.

⁴ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

⁵ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 59

30. The difference between both D1 and D2 and the inventive concept is that, when the sleeve is in an extended position, a convex shape of the baffle head forms a converging channel with the inner wall of the sleeve to direct the fluid flow parallel to the fluid flow in the nozzle. Furthermore there does not appear to be any disclosure in either D1 or D2 of a second configuration whereby the output flow of fluid is directed substantially perpendicular to the fluid flow in the nozzle.
31. The requester has argued that a baffle having a convex shape is an obvious feature – for example in order to minimise turbulence – and that any differences with regard to forming a converging channel are trivial. They have also argued that convex baffles are commonplace in the field.
32. Whilst I can accept that the person skilled in the art would be aware of different shaped baffles, it appears to me that there would require significant adaption of both the baffle and sleeve in the nozzle of D1 or D2 in order to provide both (in a first configuration) a output flow of fluid is directed substantially perpendicular to the fluid flow in the nozzle and (in a second configuration) a convex shaped baffle forming a converging channel with the sleeve to direct the fluid forwards. I see no motivation for the person skilled in the art to make such adaptations to D1 or D2.
33. Therefore it is my opinion that claim 1 is inventive in light of D1 and D2

Opinion

34. It is my opinion that claim 1 of the Patent is novel in light of D1 and D2. I also consider that claim 1 involves an inventive step in light of D1 and D2.

Benjamin Widdows
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.