

## **PATENTS ACT 1977**

IN THE MATTER OF Patent Application  
No. GB 9804563.6 in the name of David Evans

### **DECISION**

#### **Background**

1. GB 9804563.6 entitled “Cargo transportation container for ships” was filed on 19 February 1998 by the applicant, together with a request for combined search and examination. The results of the Section 17 search which included a number of prior published patent specifications and a Section 18 (3) examination report, raising objections of lack of clarity, lack of novelty, and obviousness, were issued on 25 August 1998 with a response date of 21 February 2000. A Form 51/77 was filed on 7 April 1999 authorising a firm of Patent Agents to act for the applicant and a full response to the examination report, including amended claims, was received on 5 July 1999. Publication of the application as originally filed, together with the amended claims filed on 5 July 1999, took place on 1 September 1999. The authorisation Form 51/77 was rescinded on 16 July 1999, leaving the applicant to continue to prosecute the application himself. A further Section 18(3) report along with further citations was issued on 30 September 1999 and a response was received from the applicant on 12 November 1999.

2. Because of a misunderstanding in the Office regarding the nature of this response, (it was thought initially to be a new application), a further report did not issue until 21 February 2000. This reiterated the objections of lack of clarity, lack of novelty, and obviousness, and offered the applicant (Mr Evans) an interview to resolve the matters. Mr Evans accepted the offer, and an interview was held with the examiner, Mr McMunn, during which interview a number of possible amendments were discussed. Following the interview however, the applicant wrote to the Office on 12 March 2000 rejecting all the proposed amendments and requesting a hearing. The request was granted and it was agreed that the specification would be considered in the form it was in following the amendments filed on 5 July 1999 and that

the issues were lack of clarity, lack of novelty, and obviousness. The hearing was held before me on 26 June 2000 and was attended by Mr Evans and the examiner, Mr Dave McMunn.

### **The specification**

3. The application relates to a cargo transportation container for transporting liquids at sea. The cargo transportation container comprises one or more flexible, tubular container(s) and a releasable connection by which the cargo transportation container is connected, in use, to a towing ship so as to be directly connected to the ship i.e. without the usual towing line or cable.

4. The releasable connection is provided by a buoyancy raft allowing the cargo transportation container to float when disconnected from the ship. The releasable connection attaches to the ship in a manner that allows relative sliding movement therebetween, the allowed sliding movement being limited by a catch. The flexible container(s) have a “releasable securable sealing means” at or adjacent one end to allow liquids to be filled into or emptied from the flexible container. The flexible container(s) are releasably connected to the releasable connection at this said end and each is free to rotate about its own axis.

5. The text of the specification as it stood following the amendments filed on 5 July 1999 is as follows:

#### *CARGO TRANSPORTATION CONTAINER*

*The present invention relates to a cargo transportation container. More particularly it relates to a cargo transportation container comprising a flexible tubular container used to transport liquids .*

*According to the present invention, there is provided a cargo transportation container for the transport of liquids by towing by ship, comprising a flexible tubular container*

*provided with a releasably securable sealing means either at or adjacent an end of the tubular container, and means either at or adjacent the end of the tubular container for releasably securing the cargo transportation container to the ship such that the end of the tubular container is situated adjacent a rear end of the ship.*

*Preferably, the means for releasably securing the cargo transportation container to the ship includes a mechanism allowing attachment and detachment of the tubular container to the releasably securing means.*

*Preferably, the cargo transportation container is provided with means allowing sliding movement of the tubular container relative to the ship .*

*Preferably, catchment means are provided arresting the sliding movement of the tubular container relative to the ship .*

*Preferably, the means for releasably securing the tubular container to the conveyor comprises a buoyancy raft.*

*More preferably, the buoyancy raft includes a signal beacon.*

*Preferably the tubular container is allowed to rotate on its own axis about the means for releasably securing the tubular container to the conveyor.*

*Preferably, the sealing means acts as a stop tap. Preferably, the cargo transportation container includes a plurality of the tubular containers, each attached at or adjacent the end thereof to the releasably securing means.*

*A preferred embodiment of the present invention will now be described with reference to the accompanying drawings in which: -*

*FIG. 1 is a cross-section of a cargo transportation container, when secured to a ship; and*

*FIG. 2 is a cross-section of the cargo transportation container of Fig. 1, after release from the ship.*

*Figs. 1 and 2 illustrate a cargo transportation container 1,2 comprising a number of tube like flexible containers (hoses 1) that are sealed either end according to the task set to achieve. These ends will in part be fitted with releasable sealing means which act as stop taps. The said ends of each tubular container 1 are attached to a buoyancy raft 2 which is provided with means of attaching and detaching to a rear end of co-operable towing system (ship). In Fig. 1 the raft 2 is secured in a vertical*

*arrangement to the rear end of the ship; Fig. 2 shows the arrangement when the raft 2 is released.*

*The system is provided with a suitable serviceable mechanism that will allow quantifiable towing.*

*The view A in Fig. 1 shows the arrangement of a number of tubular containers 1 (as required) on the buoyancy raft 2. Each tubular container 1 is allowed to rotate on its own axis about the buoyancy raft 2.*

*A signal beacon 3 is attached to the buoyancy raft 2 (see Fig. 2).*

### *CLAIMS*

*1. A cargo transportation container for the transport of liquids by towing by ship , comprising a flexible tubular container provided with a releasably securable sealing means either at or adjacent an end of the tubular container, and means either at or adjacent the end of the tubular container for releasably securing the cargo transportation container to the ship such that the end of the tubular container is situated adjacent a rear end of the ship.*

*2. A cargo transportation container as claimed in claim 1, wherein the means for releasably securing the cargo transportation container to the ship includes a mechanism allowing attachment and detachment of the said tubular container to the releasably securing means .*

*3. A cargo transportation container as claimed in claim 1 or claim 2 provided with means allowing sliding movement of the tubular container relative to the ship.*

*4. A cargo transportation container as claimed in claim 3 wherein catchment means are provided arresting the sliding movement of the tubular container relative to the ship .*

*5. A cargo transportation container as claimed in any of the preceding claims, wherein the means for releasably securing the tubular container to the conveyer comprises a buoyancy raft.*

*6. A cargo transportation container as claimed in claim 5, wherein the buoyancy raft includes a signal beacon.*

7. A cargo transportation container as claimed in any of the preceding claims , wherein the tubular container is allowed to rotate on its own axis about the means for releasably securing the tubular container to the ship.

8. A cargo transportation container as claimed in any of the preceding claims , wherein the sealing means acts as a stop tap .

9. A cargo transportation container as claimed in any of the preceding claims, including a plurality of the tubular containers, each attached at or adjacent the end thereof to the releasably securing means .

10. A cargo transportation container substantially described herein with reference to Figures 1-2 of the accompanying drawings.

## **The objections**

### i) Clarity

6. The examiner has objected that claim 1 is unclear in that whilst the claim is to a container *per se*, features of the ship seem to be claimed in the claim, that the “tubular container” is mentioned when the “cargo transportation container “ should be referred to. The examiner also objected that it was unclear in claim 1 that the end of the tubular container with the sealable means was also the end connected, in use, to the ship and that “a tubular container” should be “at least one tubular container”

### ii) Novelty

7. The examiner has also objected that the invention as far as its scope can be understood, lacks novelty in the light of a number of prior published patents. The most relevant prior patents were deemed by the examiner to be :

GB 2,085,366 A (TRELLEBORG). This document shows a flexible, tubular container 10, releasably secure sealing means 19 and releasable securing means 13. This was considered by the examiner to anticipate claims 1 & 2.

GB 0,824,984 (DRACONE). This document discloses a flexible, tubular container 1, releasably secure sealing means 5-7 and releasably securing means 9. This document was considered by the examiner to anticipate claim 1.

GB 0,821,195 & US 3,067,712 (DOERPINGHAUS). These documents show flexible tubular containers 1-4, releasably secure sealing means 6 and releasable securing means 8. This disclosure was considered by the examiner to anticipate claims 1 & 2. These documents also show a buoyancy raft 9 in Fig 8. This disclosure was considered by the examiner to anticipate claims 5 & 6.

EP 0,213,087 A2 (CIGOGNETTI). This document shows a flexible, tubular container 2, releasably secure sealing means 6 and releasable securing means 4, 7, 8. This disclosure was considered by the examiner to anticipate claims 1, 2 & 8.

US 5,488,921 (SPRAGG). Shows a flexible, tubular container 10, releasably secure sealing means 34-36 and releasable securing means 44. This disclosure was considered by the examiner to anticipate claims 1 & 2.

8. In interpreting the above citations, the examiner regarded the claims as being directed to a cargo transportation container *per se*, i.e. the claims are silent as to the structure of the towing ship & “means for” is taken to have the meaning “means suitable for”. Each of the above towing connections was held by the examiner as suitable for being connected to the rear of a ship so as to be “directly adjacent thereto”.

### iii) Inventive Step

9. The examiner has also objected that the invention is obvious in the light of a number of prior patent applications. In addition to the documents cited above, the following documents were deemed by the examiner to be relevant to inventiveness:

GB 2,173,744 A (BECKETT). In noting the disclosure in this document, in particular in the Figs and in lines 38 to 43 & lines 59 to 65 on page 1 and lines 55 to 59 on page 2, the examiner suggested that the whole teaching of this document was that the type of container is chosen depending on the type of cargo one wishes to carry. He suggested that flexible, tubular containers of the type defined in claim 1 of the case in suit are well known for carrying liquid cargoes and in the examiner's view this would be an obvious type for one skilled in the art to choose for use in this system. Becket shows a towable container directly connected to a towing vessel (ship) by a releasable connection allowing some limited sliding movement therebetween, when so connected. Thus the examiner suggested that claim 3 did not involve an inventive step.

WO 97/02980 A1 (SAVAGE). In drawing attention to Fig 3 and lines 5 to 11 on page 7 of this document, it was considered by the examiner that this showed that the invention of claim 9 did not demonstrate an inventive step.

10. Thus, of the current claims, it was the examiner's belief that only the features of claims 4 and 7, and the omnibus claim, claim 10, appeared to be both novel and inventive over and above the cited prior art.

### **Arguments set forward by the applicant**

11. The applicant did not effectively put forward any arguments against the examiner's objections at the hearing. The applicant stated that, whilst he had difficulty in accepting the examiners reasoning - since the cited documents did not actually look the same as his proposed arrangement - , he acknowledged that what it boiled down to was a matter of his having to choose a suitable form of wording for the claims, so that they contained new and inventive technical features.

### **Decision**

i) Clarity under Section 14(5)(b)

12. Section 14(5)(b) states that the claims shall be clear and concise. In the absence of any arguments to the contrary, I need to satisfy myself that there is substance in the examiner's objection that claim 1 lacks clarity. I find that claim 1 does lack clarity, since, although it is directed to a transportation container *per se*, it seeks to define the invention in terms of its attachment to a ship. In other words, the applicant is seeking to obtain a monopoly for the transportation container, but it is not until such a container is secured to the towing vessel that it is possible to determine whether it falls within the scope of the claim. To that extent, an informed reader of this specification would not be able to determine with certainty the precise scope of the monopoly that the applicant is seeking. It follows that all the appendant claims also lack clarity.

ii) Novelty under Section 1(1)(a)

13. Section 1(1)(a) states that a patent may be granted only for inventions which are new. With regard to the objection of lack of novelty, all the cited documents show elongate flexible transportation containers securable at one end to a towing vessel and having all the features of claim 1 - as far as the latter can currently be understood. Of course, as it stands at present, I have found that the statement of claim is not clear. Also, claim 1 does not explicitly identify the form of connection between the cargo container and the towing vessel. Considering GB 2,085,366 A (TRELLEBORG), this document shows a flexible, tubular container 10, releasably secure sealing means 19 and securing means 13 to which the towing means may be releasably secured, both lying towards or at one end of the container. This was considered by the examiner to anticipate claims 1 & 2. I agree with this view. Although there is no explicit disclosure of towing means, such as a chain or rope, in Trelleborg, there must be some such article for towing to take place, and this clearly would constitute the "releasable securing means" of claims 1 and 2 of the present case.

14. GB 0,824,984 (DRACONE) discloses a flexible, tubular container 1, releasably secure sealing means 5-7 and releasable securing means 9, both located at one end of the container. I agree with the examiner's view that this document anticipates claim 1.



15. GB 0,821,195 & US 3,067,712 (DOERPINGHAUS), which are two members of the same patent family, show flexible tubular containers 1-4, releasably secure sealing means 6 and releasable securing means 8. This disclosure was considered by the examiner to anticipate claims 1 & 2. These documents also show a buoyancy raft 9 carrying a signal mast 10 in Figs 1 and 8. This disclosure was considered by the examiner to anticipate claims 5 & 6. EP 0,213,087 A2 (CIGOGNETTI) shows a flexible, tubular container 2, releasably secure sealing means 6 in the form of a valve or tap, and releasable securing means 4, 7, 8. This disclosure was considered by the examiner to anticipate claims 1, 2 & 8. US 5,488,921 (SPRAGG) shows a flexible, tubular container 10, releasably secure sealing means 34-36 and releasable securing means 44. This disclosure was considered by the examiner to anticipate claims 1 & 2. Again I must agree with the examiner in respect of all these documents. Thus, the objection of lack of novelty is well founded, and I find that claims 1,2,5,6, and 8 are not novel.

iii) Lack of inventive step under Section 1(1)(b)

16. Finally, Section 1(1)(b) of the act requires that in order to qualify for the grant of a patent, an invention must involve an inventive step. With regard to the lack of inventive step objection, the examiner has cited, firstly, GB 2,173,744 A (BECKETT). In noting the disclosure in Beckett, in particular in the Figs and in lines 38 to 43 and lines 59 to 65 on page 1 and lines 55 to 59 on page 2, the examiner suggested that the whole teaching of this document was that the type of container is chosen depending on the type of cargo one wishes to carry. He suggested that flexible, tubular containers of the type defined in claim 1 of the case in suit are well known for carrying liquid cargoes and in the examiner's view this would be an obvious type for one skilled in the art to choose for use in this system. Thus the examiner suggested that claim 3, which identifies more clearly the form of connection between container and towing vessel, did not involve an inventive step.

17. Becket shows a vessel made up of a plurality of interconnected units the connections allowing some articulation between adjacent units. The vessel comprises one or more transport units with a propulsion unit and possibly a bow unit. I agree that Beckett discloses

a marine transport system in which a transport vessel is made up of a number of separate but connected sections, the construction of the sections being suited to the cargo they are intended to convey, and that that cargo may be fluid. Whilst Beckett refers to his system being 'flexible', I can find nothing in his specification that might point a man skilled in the art towards the use of flexible containers in this system, so in this respect I cannot accept the examiner's argument. Thus I conclude that claim 3 does involve an inventive step.

18. Before I go on I should consider the obviousness argument from a different viewpoint. Starting from the prior art relating to towable flexible transport containers, would it be obvious to use the form of connection disclosed in Beckett to secure such containers to the towing vessel? I find nothing in the prior art relating to towed flexible containers to suggest the idea of securing such containers direct to the towing vessel let alone anything to suggest that it would be advantageous to do so. I am not persuaded by the argument that because it is known to link rigid units directly together such as in Beckett, that it is obvious to consider the same form of connection when dealing with flexible containers. Thus again I find the obvious argument not made out.

19. WO 97/02980 A1 (SAVAGE). In drawing attention to Fig 3 and lines 5 to 11 on page 7 of this document, it was considered by the examiner that this showed that the invention of claim 9 did not demonstrate an inventive step. Claim 9 is directed to an arrangement in which a plurality of containers are secured to the releasable securing means, *ie* two or more containers towed in parallel. Savage certainly discloses such arrangements, and in Figure 3 it shows six containers in three pairs, with the leading pair being attached to a towing rope. I agree with the examiner's view that it would be obvious to adapt any of the arrangements disclosed in those documents cited under novelty, in the manner disclosed in Figure 3 of Savage. I agree with the examiner and thus find that claim 9 does not involve an inventive step.

### Conclusion

20. To summarise, therefore, I find that the application as it currently stands, *ie* in the

form it stood in after the amendments filed on 5 July 1999, does not comply with the requirements of Section (1) (1) (a) with regard to claims 1,2,5,6 and 8, Section (1) (1) (b) with regard to claim 9 and also Section 14 (5) (b) with regard to claims 1-9, and thus I refuse to allow the application to proceed to grant as it currently stands. However, I should point out that none of these objections is fatal to the application in the sense that there is no scope for a remedy to be found. It does seem to me that there is novel and inventive disclosure in this application and thus it is possible for the applicant to obtain a patent if a suitable form of wording can be found to overcome the examiner's objections.

21. It is appropriate therefore, to give the applicant an opportunity to submit amendments with a view to remove the outstanding objections to the claims and description of this application. In order for the applicant to be absolutely clear regarding the outstanding objections, I direct that the examiner should, as soon as convenient, and not more than three weeks from the date of this decision, issue a further report under Section 18(3), based on the specification as it stood following the amendments filed on 5 July 1999, and incorporating the objections which I have upheld along with any other outstanding objections, and giving the applicant a period of two months from issue of that report to respond. In the event that amendments filed by the applicant are not sufficient to remove all outstanding objections, the applicant will be given a further period to place the application in order as specified by the examiner.

22. As this is not a procedural matter, any appeal against this decision must be lodged with the Patents Court within six weeks of the date of this decision.

Dated this 25th Day of October 2000.

**G M ROGERS**

Deputy Director, acting for the Comptroller

**THE PATENT OFFICE**