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(72) Inventor: SAIA, Louis, P., III  
Houma, LA 70360 (US)

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(74) Representative: W.P. Thompson & Co.  
Coopers Building,  
Church Street  
Liverpool L1 3AB (GB)

(71) Applicant: SAIA, Louis, P., III  
Houma, LA 70360 (US)

(54) **Portable self-contained cooler/freezer apparatus for use on common carrier type unrefrigerated truck lines and the like**

(57) A shipping container (12) for shipping frozen and/or refrigerated cargo in an unrefrigerated cargo area of a substantially larger transport vehicle comprising:

f) means for preliminarily charging the container interior with refrigerant from an external bulk source to lower the container interior temperature prior to shipment.

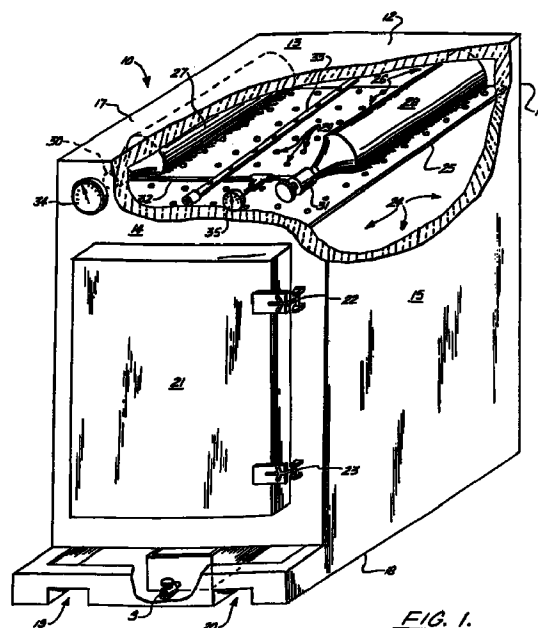
a) a container having an interior area (24) with a volume to be loaded with the frozen and/or refrigerated cargo with an access opening (21) that can be opened/closed;

b) one or more refrigerant tanks (27,28) mounted in the container for containing a cryogenic liquefied refrigerant under pressure to be utilized for cooling the container interior;

c) header means (32) for piping refrigerant from the tanks (27,28) to the container interior;

d) temperature responsive controller means for periodically dispensing refrigerant from the tanks to the header in order to maintain a desired preselected preset refrigerated or frozen temperature range within the container interior;

e) a lifting frame (18,19,20) positioned at the bottom of the container and including load transfer means for forming a connection between a forklift type lifting mechanism and the lower end portion of the container so that the container may be transferred into and out of an unrefrigerated vehicle using a forklift mechanism; and



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## EUROPEAN SEARCH REPORT

Application Number  
EP 95 20 3062

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DE-A-26 50 698 (GEBRÜDER THIELMANN)	11,14	F25D3/12
Y	* page 12, paragraph 4 - page 15, paragraph 1; figures 1-4 *	1,3,5,7,8,12	
A	---	13	
Y	US-A-3 257 820 (CASE)	1,3,5,7,8,12	
A	* column 2, line 5 - column 4, line 11; figures 1-4 *	13	
X	---	14	
A	US-A-3 287 925 (KANE)	1-4,6,7,10,11,13	
A	* column 3, line 24 - column 11, line 25; figures 1-3 *	10,11,13	
X	---	14	
A	US-A-3 316 726 (PAULIUKONIS)	1-3,6,7,10,11,13	
A	* column 2, line 13 - column 6, line 42; figures 1-5 *	10,11,13	TECHNICAL FIELDS SEARCHED (Int.Cl.6)  F25D
A	US-A-3 281 075 (SMYERS)	1,7,11,13,14	
	* column 2, line 40 - column 8, line 10; figures 1-7 *		
A	---	1,8,11	
A	US-A-4 276 752 (MODLER)		
	* column 3, line 66 - column 4, line 12; figures 1,2 *		
A	---	13	
A	US-A-4 467 612 (WEASEL)		
	* column 4, line 51 - line 65; figures 1,2 *		
E	---	1-14	
E	US-A-4 825 666 (SAIA)		
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E	---	1-14	
E	WO-A-90 12991 (SAIA)		
	* the whole document *		
A	---		
A	US-A-2 508 385 (HALL)		
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		12 July 1996	Boets, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CL.6)
A	GB-A-345 776 (SMALL)		
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A	US-A-3 561 226 (RUBIN)		
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			TECHNICAL FIELDS SEARCHED (Int. CL.6)
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		12 July 1996	Boets, A
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  .....  &amp; : member of the same patent family, corresponding document</p>			

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