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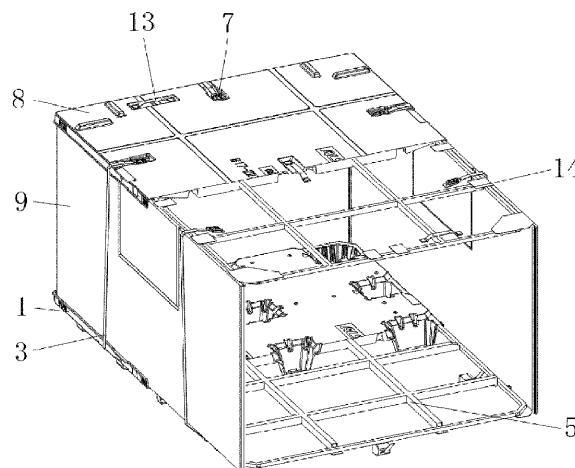
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(54) **PALLET, SUPER-LARGE HEAVY-DUTY PERIPHERAL PLATE BOX, SUPER-LARGE PERIPHERAL PLATE BOX AND C-TYPE PERIPHERAL PLATE**

(57) The present disclosure relates to the technical field of logistics transportation devices, in particular to a pallet. Through the technical scheme, the pallet includes a shell, a clamping groove, a frame assembly and mounting grooves. The clamping groove is formed on the top of the shell and adjacent to the outer side of the shell. A

cavity is formed inside the shell. The frame assembly is mounted inside the cavity. A skeleton is arranged in the frame assembly. An outer frame is mounted on the outer side of the skeleton. Through the combination of various structures, the frame assembly is arranged inside the shell of the device.



**FIG. 4**

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B65D 2519/00641; B65D 2519/00711



## EUROPEAN SEARCH REPORT

Application Number

EP 24 16 5721

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 20 2005 009622 U1 (WILLI OETTING KUNSTSTOFFVERFOR [DE]) 25 August 2005 (2005-08-25)	1	INV. B29C31/00
Y	* figures 1-4 *	2,5-14	
Y	US 2013/032507 A1 (DU TOIT PIETER W [ZA] ET AL) 7 February 2013 (2013-02-07) * figure 2 *	2	
Y	ES 2 912 309 A1 (MANCHON MACIAS ALBERTO [ES]) 25 May 2022 (2022-05-25) * figures 1-6 *	5-14	
A	DE 94 13 518 U1 (KTP KUNSTSTOFFTECHNIK UND PROD [DE]) 13 October 1994 (1994-10-13) * figure 1 *	5-14	
			TECHNICAL FIELDS SEARCHED (IPC)
			B29C B65D
-The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		10 March 2025	Jervelund, Niels
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			



Application Number

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☒ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

5 - 14

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



# LACK OF UNITY OF INVENTION SHEET B

Application Number

EP 24 16 5721

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

## 1. claims: 1, 2

A pallet, comprising a shell, a clamping groove, a frame assembly and mounting grooves, wherein the clamping groove is formed on a top of the shell and adjacent to an outer side of the shell, a cavity is formed inside the shell, the frame assembly is mounted inside the cavity, a skeleton is arranged in the frame assembly, and an outer frame is mounted on an outer side of the skeleton, whereby the shell comprises fifteen groups of supporting legs.

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## 2. claim: 3

A pallet, comprising a shell, a clamping groove, a frame assembly and mounting grooves, wherein the clamping groove is formed on a top of the shell and adjacent to an outer side of the shell, a cavity is formed inside the shell, the frame assembly is mounted inside the cavity, a skeleton is arranged in the frame assembly, and an outer frame is mounted on an outer side of the skeleton, whereby six groups of tightening belt are mounted on the shell.

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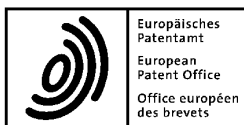
## 3. claim: 4

A pallet, comprising a shell, a clamping groove, a frame assembly and mounting grooves, wherein the clamping groove is formed on a top of the shell and adjacent to an outer side of the shell, a cavity is formed inside the shell, the frame assembly is mounted inside the cavity, a skeleton is arranged in the frame assembly, and an outer frame is mounted on an outer side of the skeleton, whereby a square gasket is mounted to a bottom of a connection portion of the outer frame and the skeleton, and fins are mounted to a bottom of four corners of the outer frame.

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## 4. claims: 5-14

A super-large heavy-duty peripheral plate box, comprising a top cover, a peripheral plate, a shell and a frame assembly, wherein a cavity is formed inside the shell, the frame assembly is fixedly mounted inside the cavity, a clamping groove is formed on a top of the shell, the peripheral plate is mounted in the clamping groove, an operation window is formed in the peripheral plate, the top cover is mounted on a top of the peripheral plate, limited walls are arranged on both sides of a top of the top cover, handles are mounted on both sides of the top of the top cover, a groove is formed inside the top cover, a reinforced frame is mounted in the



# **LACK OF UNITY OF INVENTION** **SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

groove, six groups of tightening belts are mounted on an outer side of the top cover, fixing buckles are mounted at both ends of each of the tightening belts, the fixing buckles are respectively connected with the top of the top cover and a bottom of the shell, the frame assembly and the reinforced frame are the same in specifications and sizes, and fins are welded adjacent to comers of the frame assembly and corners of the reinforced frame.

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5. claims: 15-17

A C-type peripheral plate, comprising a side plate, a guard plate, a bent plate and a laminated plate, wherein the bent plate is arranged at each of both ends of the guard plate, the side plate is mounted on a side, away from the guard plate, of the bent plate, and the laminated plate is mounted on a side, away from the bent plate, of the side plate.

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# **ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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10-03-2025

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