

United  
States  
of  
America

To Promote the Progress



of Science and Useful Arts

## The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this United States

# Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Katherine Kelly Vidal

DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

## **Maintenance Fee Notice**

If the application for this patent was filed on or after December 12, 1980, maintenance fees are due three years and six months, seven years and six months, and eleven years and six months after the date of this grant, or within a grace period of six months thereafter upon payment of a surcharge as provided by law. The amount, number and timing of the maintenance fees required may be changed by law or regulation. Unless payment of the applicable maintenance fee is received in the United States Patent and Trademark Office on or before the date the fee is due or within a grace period of six months thereafter, the patent will expire as of the end of such grace period.

## **Patent Term Notice**

If the application for this patent was filed on or after June 8, 1995, the term of this patent begins on the date on which this patent issues and ends twenty years from the filing date of the application or, if the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121, 365(c), or 386(c), twenty years from the filing date of the earliest such application ("the twenty-year term"), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b), and any extension as provided by 35 U.S.C. 154(b) or 156 or any disclaimer under 35 U.S.C. 253.

If this application was filed prior to June 8, 1995, the term of this patent begins on the date on which this patent issues and ends on the later of seventeen years from the date of the grant of this patent or the twenty-year term set forth above for patents resulting from applications filed on or after June 8, 1995, subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b) and any extension as provided by 35 U.S.C. 156 or any disclaimer under 35 U.S.C. 253.





US012043474B2

(12) **United States Patent**  
**Coomer et al.**

(10) **Patent No.:** **US 12,043,474 B2**  
(45) **Date of Patent:** **Jul. 23, 2024**

(54) **CONTAINER**

(71) Applicant: **FORTINBRAS RESULTS PTY LTD,**  
Bridgeman Downs (AU)

(72) Inventors: **Paul Coomer,** Bridgeman Downs (AU);  
**Scot Farley,** Birkdale (AU)

(73) Assignee: **Fortinbras Results Pty Ltd,**  
Bridgeman Downs (AU)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(h) by 228 days.

(21) Appl. No.: **17/687,637**

(22) Filed: **Mar. 5, 2022**

(65) **Prior Publication Data**

US 2022/0185578 A1 Jun. 16, 2022

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 16/479,341,  
filed as application No. PCT/AU2018/050040 on Jan.  
23, 2018, now abandoned.

(30) **Foreign Application Priority Data**

Jan. 24, 2017 (AU) ..... 2017900213

(51) **Int. Cl.**

**B65D 88/52** (2006.01)  
**B60P 7/13** (2006.01)

(Continued)

(52) **U.S. Cl.**

CPC ..... **B65D 88/52** (2013.01); **B60P 7/13**  
(2013.01); **B61D 45/007** (2013.01); **B65D**  
**77/06** (2013.01); **B65D 88/54** (2013.01);  
**B65D 90/205** (2013.01)

(58) **Field of Classification Search**

CPC ..... B61D 45/00-008; B65D 88/52-58; B65D  
88/1675; B65D 88/1681; B65D 5/4208;  
B65D 25/22

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,756,469 A \* 9/1973 Clark ..... B65D 90/046  
222/105  
4,143,796 A \* 3/1979 Williamson ..... B65D 88/1681  
383/41

(Continued)

**FOREIGN PATENT DOCUMENTS**

GB 987455 3/1965

**OTHER PUBLICATIONS**

International Search Report mailed Feb. 27, 2018 for International  
Application No. PCT/AU2018/050040.

(Continued)

*Primary Examiner* — Nicolas A Arnett

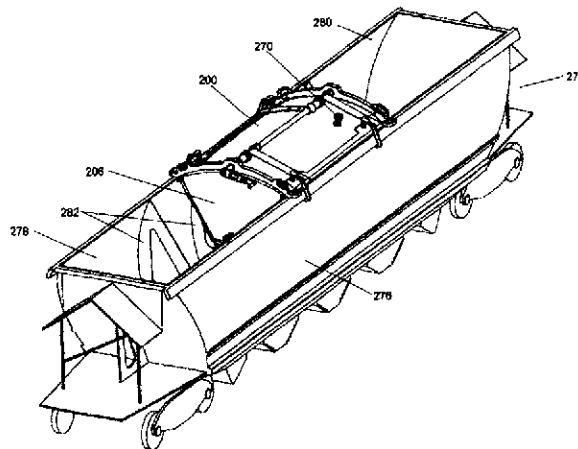
(74) *Attorney, Agent, or Firm* — Lippes Mathias LLP

(57)

**ABSTRACT**

An apparatus for storing or transporting flowable materials or other materials, such as diesel fuel, includes a container and a support. The container is supported by the support. The support sits on or is mounted across an upper part of an open top railway wagon or open top truck or truck trailer used for transporting bulk commodities (such as coal or iron ore). The apparatus is movable between an expanded configuration in which the container is expandable into a lower part of the open top railway wagon or open top truck or truck trailer used for transporting bulk commodities, and a collapsed configuration in which the container is collapsible to the support. In use, a railway wagon is filled with coal or other bulk commodities and the apparatus is placed on top of the railway wagon in the collapsed configuration. At the port, the coal is emptied from the railway wagon and the container of the apparatus is filled with fuel. The support supports the apparatus on the railway wagon and the container extends into the railway wagon. The fuel may then be transported back to the mine, where the apparatus is removed from the railway wagon and the container decanted. The railway wagon is again filled with coal or

(Continued)



other bulk commodities and the apparatus is placed on top of the railway wagon in the collapsed configuration and the cycle continues to meet the fuel requirements of the relevant mine.

**15 Claims, 18 Drawing Sheets**

(51) **Int. Cl.**

**B61D 45/00** (2006.01)  
**B65D 77/06** (2006.01)  
**B65D 88/54** (2006.01)  
**B65D 90/20** (2006.01)

(56)

**References Cited**

**U.S. PATENT DOCUMENTS**

4,194,652 A \* 3/1980 Williamson ..... B65D 88/1612  
 112/475.08  
 4,397,406 A \* 8/1983 Croley ..... B65D 5/726  
 222/105  
 4,497,259 A \* 2/1985 Titterton ..... B61D 3/06  
 410/58  
 4,688,979 A \* 8/1987 Kupersmit ..... B65D 88/16  
 414/412  
 4,861,215 A \* 8/1989 Bonerh ..... B60P 3/426  
 414/469

5,402,732 A \* 4/1995 Erickson ..... B61D 5/02  
 222/105  
 5,622,277 A \* 4/1997 Van Gierzen ..... B65D 77/061  
 220/9.4  
 5,897,012 A \* 4/1999 Sortwell ..... B65D 19/12  
 220/666  
 6,079,934 A \* 6/2000 Beale ..... B65D 90/046  
 383/117  
 8,100,614 B2 \* 1/2012 Jerich ..... B60P 3/426  
 410/2  
 2007/0108204 A1 \* 5/2007 Warhurst ..... B65D 90/021  
 220/6  
 2009/0212550 A1 \* 8/2009 Albers ..... B60P 3/426  
 220/4.12  
 2010/0314386 A1 \* 12/2010 Buonerba ..... B65D 90/047  
 220/666  
 2019/0352089 A1 \* 11/2019 Coomer ..... B65D 88/22  
 2021/0198032 A1 \* 7/2021 Kyte ..... B65D 88/524

**OTHER PUBLICATIONS**

Written Opinion of the International Searching Authority mailed Feb. 27, 2018 for International Application No. PCT/AU2018/050040.  
 International Preliminary Report on Patentability mailed Jul. 27, 2018 for International Application No. PCT/AU2018/050040.  
 Examination Report No. 1 dated Jun. 30, 2022 for Australian Application No. 2022203349.

\* cited by examiner