



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

(10) **Patent No.:** **US 10,865,071 B2**  
(45) **Date of Patent:** **Dec. 15, 2020**

(54) **CONFIGURABLE MULTICAR ELEVATOR SYSTEM**

(71) Applicant: **Otis Elevator Company**, Farmington, CT (US)

(72) Inventors: **Randall Keith Roberts**, Hebron, CT (US); **Zbigniew Piech**, Cheshire, CT (US); **Adam Marian Myszkowski**, Ostrow Wlkp (PL); **Cezary Jedryczka**, Lniano (PL); **Wojciech Szelag**, Poznan (PL); **Tadeusz Witczak**, Bethel, CT (US); **Enrico Manes**, Feeding Hills, MA (US); **Richard N. Fargo**, Plainville, CT (US); **Bryan Robert Siewert**, Farmington, CT (US)

(73) Assignee: **OTIS ELEVATOR COMPANY**, Farmington, CT (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 408 days.

(21) Appl. No.: **15/537,068**

(22) PCT Filed: **Dec. 17, 2015**

(86) PCT No.: **PCT/US2015/066273**  
§ 371 (c)(1),  
(2) Date: **Jun. 16, 2017**

(87) PCT Pub. No.: **WO2016/100609**  
PCT Pub. Date: **Jun. 23, 2016**

(65) **Prior Publication Data**  
US 2018/0044138 A1 Feb. 15, 2018

**Related U.S. Application Data**

(60) Provisional application No. 62/093,100, filed on Dec. 17, 2014.

(51) **Int. Cl.**  
**B66B 9/00** (2006.01)  
**B66B 1/24** (2006.01)  
(Continued)

(52) **U.S. Cl.**  
CPC ..... **B66B 9/003** (2013.01); **B66B 1/2491** (2013.01); **B66B 1/3446** (2013.01);  
(Continued)

(58) **Field of Classification Search**  
CPC ..... B66B 9/003; B66B 1/2491; B66B 1/3449; B66B 1/3446  
(Continued)

(56) **References Cited**  
U.S. PATENT DOCUMENTS

2,052,690 A \* 9/1936 Austin ..... B66B 7/021  
187/249  
2,612,238 A \* 9/1952 Angelicola ..... B66B 9/10  
187/270  
(Continued)

FOREIGN PATENT DOCUMENTS

CN 1462718 A 12/2003  
CN 101875465 A 11/2010  
(Continued)

OTHER PUBLICATIONS

Chinese Office Action for application CN 20150069187.3, dated Nov. 13, 2018, 8 pages.  
(Continued)

*Primary Examiner* — David S Warren  
(74) *Attorney, Agent, or Firm* — Cantor Colburn LLP

(57) **ABSTRACT**

A method and system for managing an elevator system (10), includes providing a plurality of elevator cars (14) to travel in a hoistway (11), and selectively introducing and removing  
(Continued)

