US009409738B2

(12) **United States Patent**
Hasegawa

(10) **Patent No.: US 9,409,738 B2**
(45) **Date of Patent: Aug. 9, 2016**

(54) **PRINTING APPARATUS AND CONTROL METHOD**

(71) Applicant: **CANON KABUSHIKI KAISHA**, Tokyo (JP)

(72) Inventor: **Kazuhide Hasegawa**, Kashiwa (JP)

(73) Assignee: **CANON KABUSHIKI KAISHA**, Tokyo (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/821,869**

(22) Filed: **Aug. 10, 2015**

(65) **Prior Publication Data**

US 2016/0052743 A1 Feb. 25, 2016

(30) **Foreign Application Priority Data**

Aug. 20, 2014 (JP) 2014-167956

(51) **Int. Cl.**

B65H 31/24	(2006.01)
B65H 43/00	(2006.01)
B65H 29/60	(2006.01)
B65H 31/32	(2006.01)
G03G 15/00	(2006.01)

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

CPC ***B65H 31/24*** (2013.01); ***B65H 29/60*** (2013.01); ***B65H 31/32*** (2013.01); ***B65H 43/00*** (2013.01); ***G03G 15/6538*** (2013.01); *B65H 2405/15* (2013.01); *B65H 2801/06* (2013.01); *B65H 2801/27* (2013.01); *G03G 15/5012* (2013.01); *G03G 15/6547* (2013.01)

(58) **Field of Classification Search**

CPC B65H 31/24; B65H 31/30; B65H 37/04; B65H 43/00; B65H 43/06; B65H 2301/16; B65H 2301/165

USPC 271/298

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2005/0017426 A1* 1/2005 Hirata B65H 37/00 270/58.08

2014/0159306 A1* 6/2014 Nonaka B65H 29/60 271/288

FOREIGN PATENT DOCUMENTS

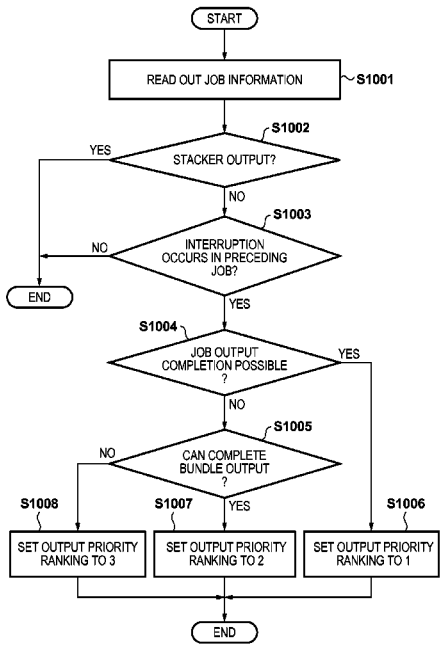
JP 2009-160849 A 7/2009

* cited by examiner

Primary Examiner — David H Bollinger

(74) *Attorney, Agent, or Firm* — Carter, DeLuca, Farrell & Schmidt LLP

(57) **ABSTRACT**

Sheet discharge preparation is performed in a finisher that is different to the stacking apparatus, before the discharge of sheets to the stacking apparatus is interrupted by the operation of the stacking apparatus for sliding stacked sheets to a position for user retrieval. When sheet discharge preparation is performed in the finisher, a second job in which sheets are discharged to the finisher is executed.

10 Claims, 17 Drawing Sheets