(12) **United States Patent**   (10) **Patent No.:**   **US 9,186,682 B2**

Freakes   (45) **Date of Patent:**   **Nov. 17, 2015**

(54) **MULCHING APPARATUS**

(71) Applicant: **Anthony Freakes**, Skillman, NJ (US)

(72) Inventor: **Anthony Freakes**, Skillman, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 201 days.

(21) Appl. No.: **13/714,895**

(22) Filed: **Dec. 14, 2012**

(65) **Prior Publication Data**

US 2013/0175376 A1   Jul. 11, 2013

Related U.S. Application Data

(60) Provisional application No. 61/570,648, filed on Dec. 14, 2011.

(51) **Int. Cl.**
B02C 23/24	(2006.01)
B02C 23/02	(2006.01)
A01G 3/00	(2006.01)

(52) **U.S. Cl.**
CPC *B02C 23/02* (2013.01); *A01G 3/002* (2013.01); *B02C 23/24* (2013.01); *B02C 2201/066* (2013.01)

(58) **Field of Classification Search**
CPC B01D 45/12; B02C 1/00; B02C 13/286; B02C 4/42; B02C 18/142; B02C 18/2291; B02C 13/00; B02C 18/362; B02C 2201/066; B02C 23/02; B02C 23/24; A01G 3/00
USPC 241/60, 101.2, 186.2, 222, 224, 248,

241/285.1, 287, 292.1; 144/172, 180, 144/252.1, 252.2
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,773,601 A	*	9/1988	Urich et al.	241/101.761
4,875,630 A	*	10/1989	Carlson	241/56
5,020,309 A	*	6/1991	Hopkins	56/13.3
5,102,056 A	*	4/1992	Ober	241/55
5,137,219 A	*	8/1992	Morey	241/92
5,762,273 A	*	6/1998	Shubin	241/60
5,860,606 A	*	1/1999	Tiedeman et al.	241/55
2007/0289657 A1	*	12/2007	Gunson	141/5

* cited by examiner

Primary Examiner — Faye Francis
Assistant Examiner — Onekki Jolly
(74) *Attorney, Agent, or Firm* — Timothy X. Gibson, Esq.; Gibson & Dernier LLP

(57) **ABSTRACT**

A system is disclosed for mulching material including a floor stand configured to secure a hand-manipulatable blower/vacuum mulching device in a position to receive material to be mulched, and a hopper having an end for receiving material to be mulched and an opposite end configured to be connected to an intake of the mulching device. A floor stand is disclosed which is operable to secure a hand-manipulatable blower/vacuum mulching device in an upright position. A floor stand may include a securing device pivotably engaged thereto, wherein the securing device is operable to removably engage and permit pivotable selective positioning of a hand-manipulatable blower/vacuum mulching device.

11 Claims, 8 Drawing Sheets