

US008596563B2

(12) United States Patent Levy et al.

(10) Patent No.:

US 8,596,563 B2

(45) **Date of Patent:**

*Dec. 3, 2013

(54) METHOD AND APPARATUS FOR RECYCLING CARPET

(71) Applicants: Frank Levy, Quogue, NY (US); Sergio Dell'Orco, Capalle (IT)

(72) Inventors: Frank Levy, Quogue, NY (US); Sergio

(72) Inventors: Frank Levy, Quogue, NY (US); Sergio Dell'Orco, Capalle (IT)

Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: 13/677,383

(22) Filed: **Nov. 15, 2012**

(65) Prior Publication Data

US 2013/0068865 A1 Mar. 21, 2013

Related U.S. Application Data

(63) Continuation of application No. 12/806,454, filed on Aug. 12, 2010, now Pat. No. 8,360,348.

(51) Int. Cl. *B02C 19/00* (2006.01)

(52) **U.S. CI.**USPC **241/24.19**; 241/186.35; 241/223; 241/DIG. 38: 241/242

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

| 124,196 A * | 3/1872 | Demailly 162/28 |
|---------------|--------|-----------------------|
| 5,383,616 A * | 1/1995 | Svaighert 241/242 |
| 5,947,395 A * | 9/1999 | Peterson et al 241/32 |
| 8,360,348 B2* | 1/2013 | Levy et al 241/24.19 |

^{*} cited by examiner

Primary Examiner — Mark Rosenbaum

(74) Attorney, Agent, or Firm — Thomas A. O'Rourke; Bodner & O'Rourke, LLP

(57) ABSTRACT

The present invention is directed to an apparatus and method for separating carpet fibers from a backing material to which said fibers are secured. The apparatus includes a belt for driving a carpet strip having one or more backings and one or more fibers secured on a face of said backing into the operative part of the device. There are a pair of rollers that are adapted to receive the carpet strip from said belt, and pass the carpet strip to a dish plate. The dish plate has an edge extending upwardly from the dish plate. The face of the carpet having the fibers contacts the edge after the carpet passes through the rollers. The edge of the blade holds the carpet presenting it to the main drum. The main drum rotates downwards and has a plurality of pins that shred the carpet backing and tear apart and free the face carpet fibers from the backing fibers. The face fibers pass to a receptacle for recycling. The torn backing fibers, being usually longer and lighter than the face fibers, remain within the pins of the drum and are transported towards the back end of the machine and fall in a different receptacle for recycling.

21 Claims, 2 Drawing Sheets

