

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **89304107.9**

(51) Int. Cl.4: **A 46 B 3/16**
A 46 B 7/10

(22) Date of filing: **25.04.89**

(30) Priority: **27.04.88 US 186907**

(43) Date of publication of application:
02.11.89 Bulletin 89/44

(84) Designated Contracting States: **DE FR GB**

(88) Date of deferred publication of search report:
14.03.90 Bulletin 90/11

(71) Applicant: **MINNESOTA MINING AND MANUFACTURING COMPANY**
3M Center, P.O. Box 33427
St. Paul Minnesota 55133-3427 (US)

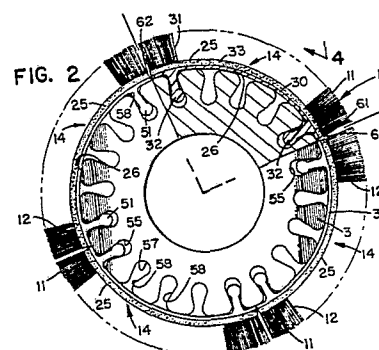
(72) Inventor: **Young, John B. c/o Minnesota Mining and Manufacturing Company 2501 Hudson Road P.O.Box 33427 St. Paul Minnesota 55133-3427 (US)**

Lokken, Roger C. c/o Minnesota Mining and Manufacturing Company 2501 Hudson Road P.O.Box 33427 St. Paul Minnesota 55133-3427 (US)

(74) Representative: **Baillie, Iain Cameron et al**
c/o Ladas & Parry Isartorplatz 5
D-8000 München 2 (DE)

(54) **Apparatus and brush segment arrangement for finishing wheel brushes, and method.**

(57) A brush segment for mounting on a slotted support structure (3) is presented. The brush segment generally comprises: a substrate (14); a carpet of bristles (12) mounted on the substrate (14) in a preferred manner; and, a root system (32) projecting outwardly from a side of the substrate (14) opposite from the carpet of bristles (14). Brush segments according to the present invention are particularly well-adapted for mounting in association with longitudinal slots (55) of a cylindrical hub (3) arrangement. According to a first described embodiment, the substrate (14) is flat and relatively flexible, and includes a plurality of root members (32) thereon, for mounting. In a second embodiment described, the substrate (14) is generally curved, elastic, and includes a single centrally located root member (83), for mounting. Also according to the present invention a combination of a hub (3) and at least one brush segment is described. Further, a method of preparing a brush surface is also provided.





| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|--|--|--|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int. Cl.4) |
| A | GB-A- 946 422 (STODDARD MANUFACTURING CO.) * Page 1, line 70 - page 2, line 39; figures 1,2 * --- | 1,8 | A 46 B 3/16 A 46 B 7/10 |
| A | US-A-4 567 619 (CLARK) * Claims 1-5; figures 1-4 * --- | 1,8 | |
| A | US-A-3 533 125 (BUECHEL) * Column 1, line 53 - column 3, line 8; figures 1-4 * --- | 1,8 | |
| A | US-A-3 699 727 (McDONALD) * Claims 1-10; figures 1-6 * ----- | 1,8 | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl.4) |
| | | | A 46 B B 24 D |
| The present search report has been drawn up for all claims | | | |
| Place of search THE HAGUE | | Date of completion of the search 20-11-1989 | Examiner ERNST R.T. |
| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | | | |