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# United States Patent [19]

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**Knycha**

[45] Date of Patent: **\*\* Nov. 1, 1994**

[54] **HAND OPERATED AIR PUMP FOR USE IN COMPOSTING OPERATIONS**

4,712,592 12/1987 Brown .  
4,932,849 6/1990 Scheffer .

[76] Inventor: **Joseph A. Knycha, R.R. #1, Jerseyville, ON, Canada, L0R 1R0**

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[\*\*] Term: **14 Years**

[57] **CLAIM**

[21] Appl. No.: **13,370**

The ornamental design for an hand operated air pump for use in composting operations, as shown and described.

[22] Filed: **Sep. 23, 1993**

[52] U.S. Cl. .... **D23/231**

[58] Field of Search ..... 417/234, 258, 535-537,  
417/541-544, 571, 313; 152/415-416, 426;  
141/98; D23/231, 232

**DESCRIPTION**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

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| 669,118    | 3/1901  | Kindermann | ..... | 417/258 |
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| 4,569,275  | 2/1986  | Brunet     | .     |         |

FIG. 1 is an exploded front, top and side perspective view a hand operated air pump for use in composting operations showing my new design;  
FIG. 2 is an exploded front elevational view thereof; the rear, top and bottom being a mirror image;  
FIG. 3 is an exploded end view thereof;  
FIG. 4 is an exploded end elevational view thereof as seen from the opposite end of FIG. 3; and,  
FIG. 5 is a reduced perspective view thereof in assembled condition.



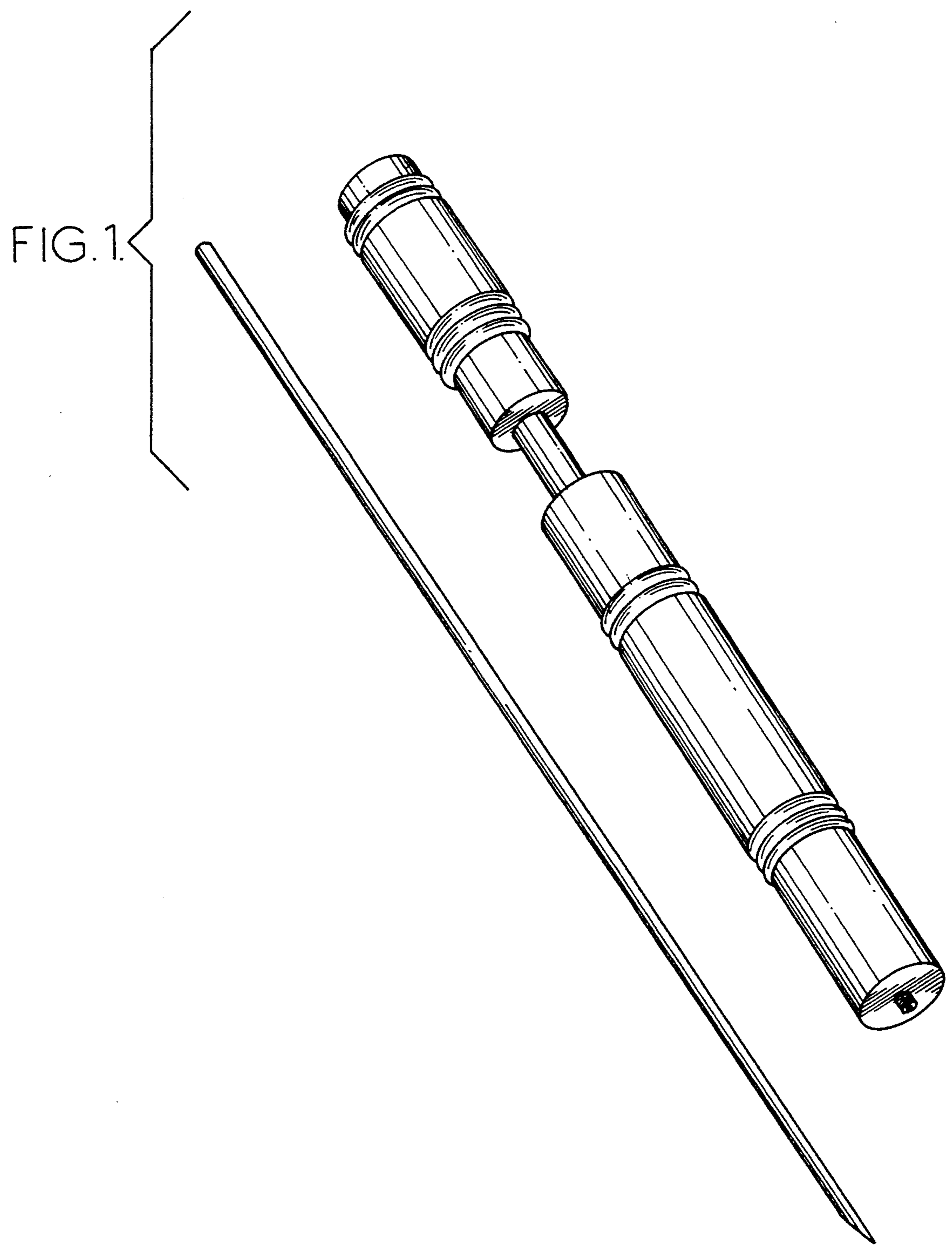


FIG. 2

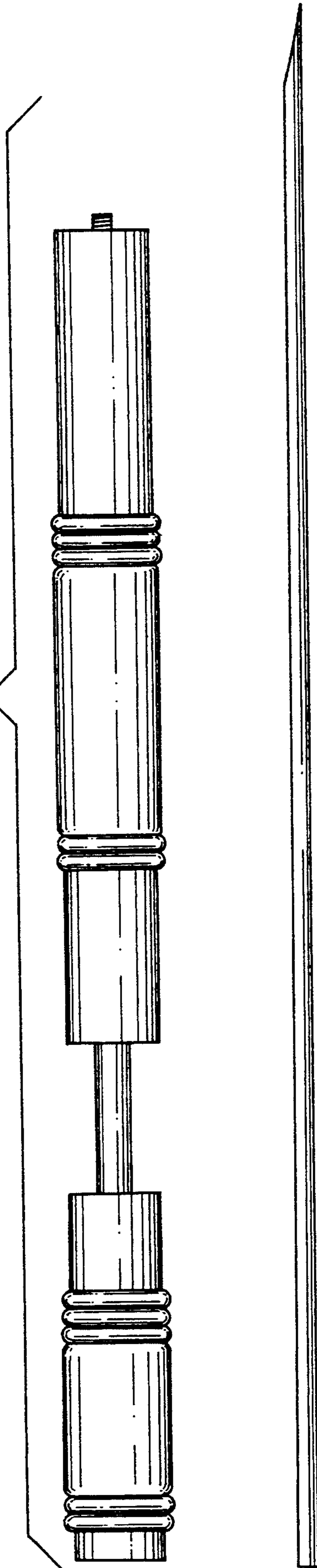


FIG.3.

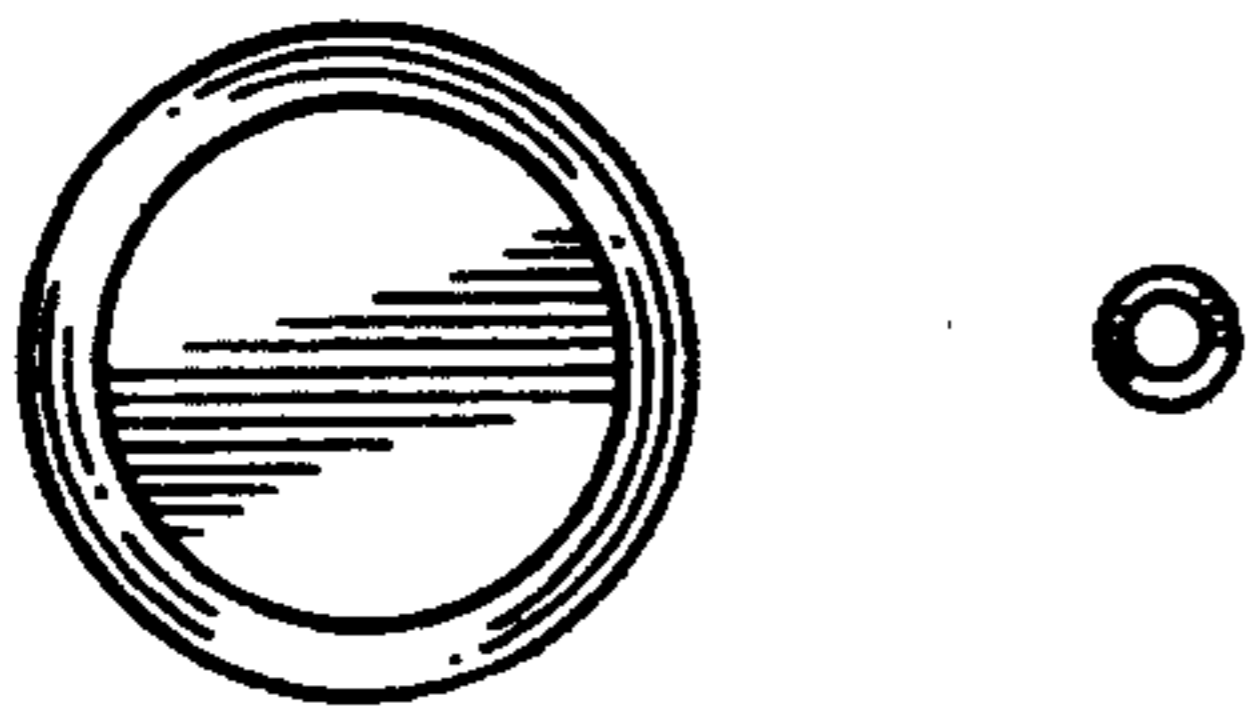
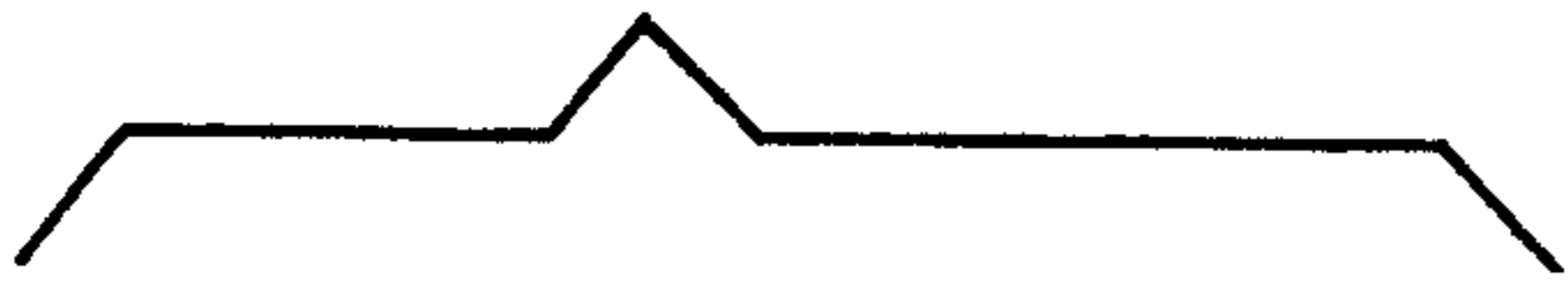
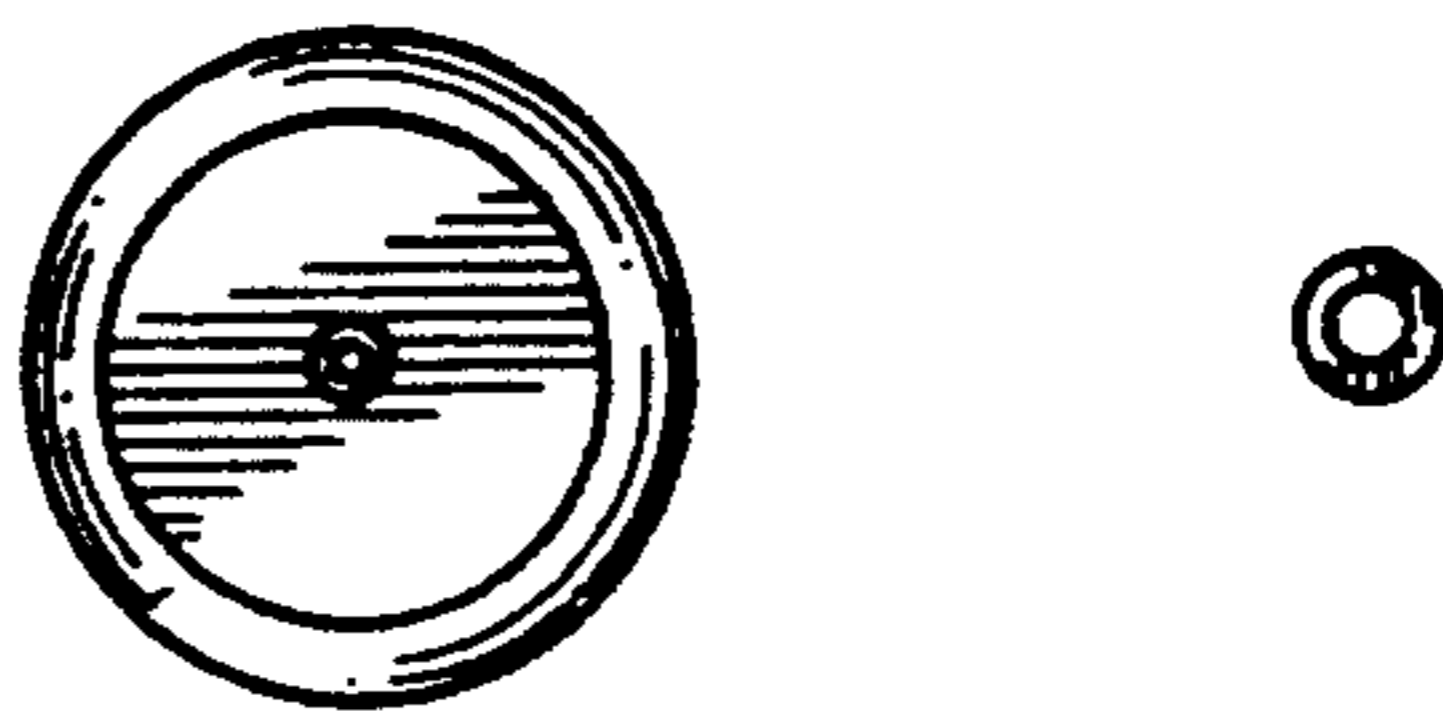
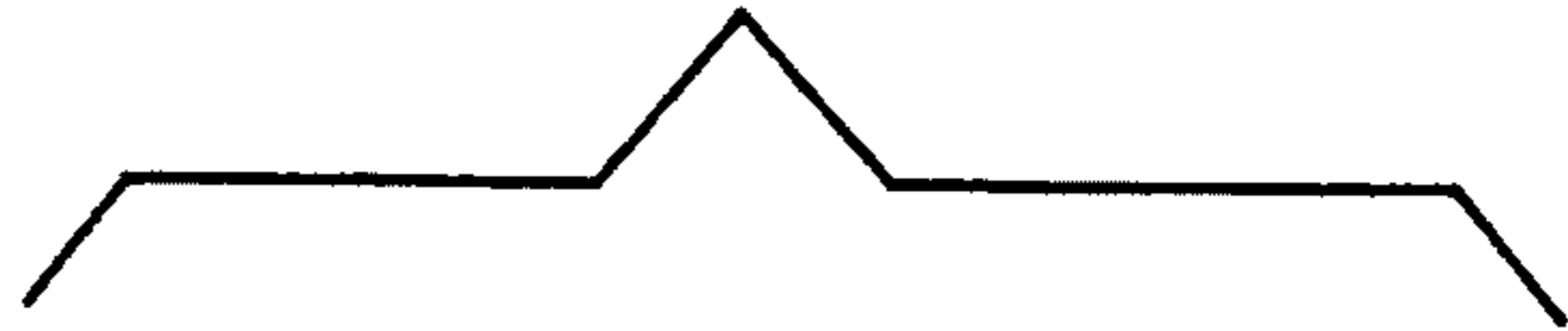


FIG.4.



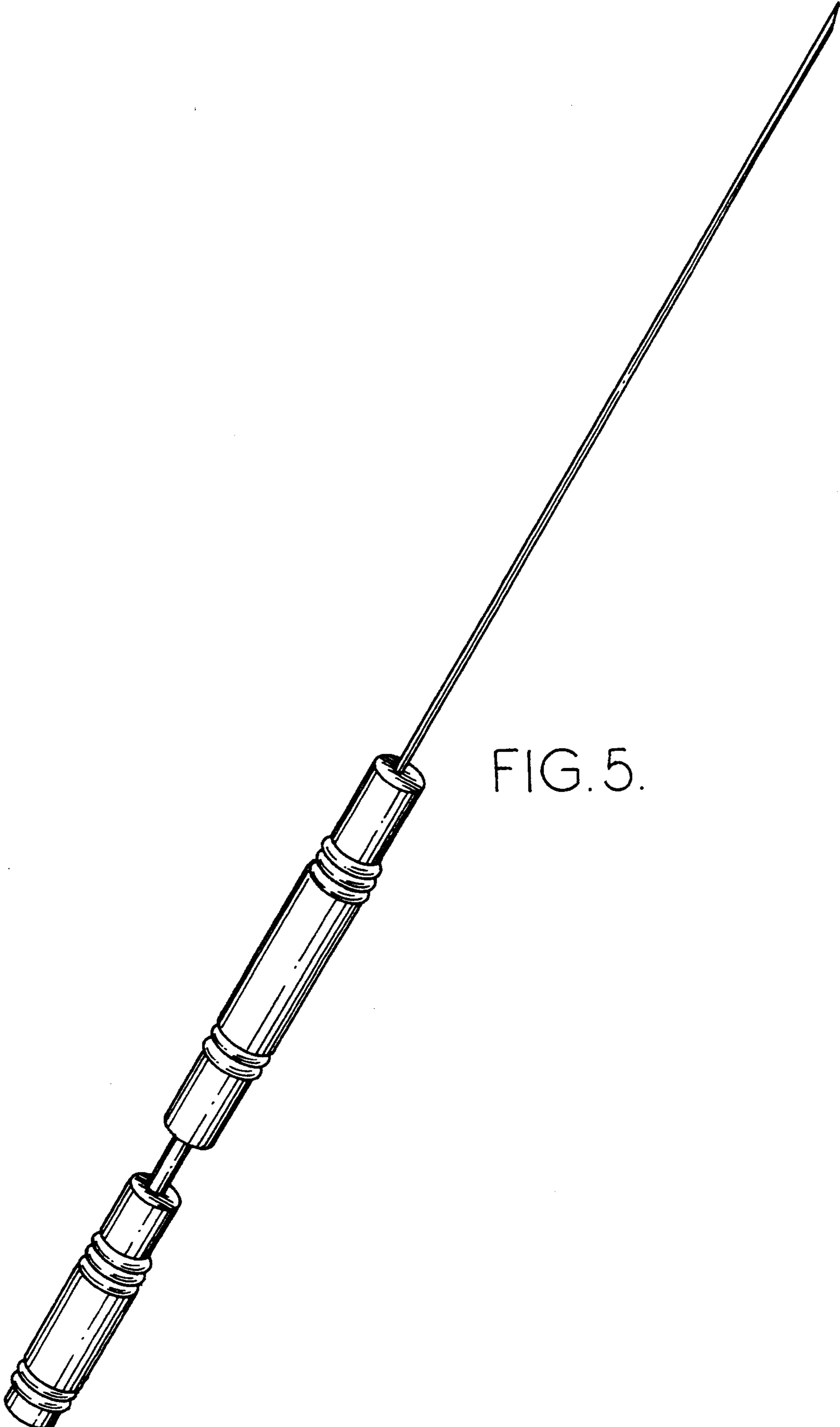


FIG. 5.