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(12) **United States Design Patent**  
**Sakata et al.**

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(54) **END MILL**

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(73) Assignee: **Sumitomo Electric Hardmetal Corp.**, Hyogo (JP)

(\*\*) Term: **14 Years**

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(22) Filed: **May 17, 2007**

**Related U.S. Application Data**

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(30) **Foreign Application Priority Data**

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| Aug. 10, 2005 | (JP) | ..... | 2005-023217 |
| Aug. 10, 2005 | (JP) | ..... | 2005-023220 |
| Aug. 10, 2005 | (JP) | ..... | 2005-023226 |
| Aug. 10, 2005 | (JP) | ..... | 2005-023227 |

(51) **LOC (8) Cl.** ..... **15-09**

(52) **U.S. Cl.** ..... **D15/139**

(58) **Field of Classification Search** ..... D15/131,  
D15/132, 138, 139; 407/40, 42, 54, 187,  
407/199, 223, 224, 227, 229, 233, 239 A,  
407/239 R, 700, 713

See application file for complete search history.

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(74) *Attorney, Agent, or Firm*—McDermott Will & Emery LLP

(57) **CLAIM**

The ornamental design for an end mill, as shown and described.

**DESCRIPTION**

FIG. 1 is a plan view of the end mill;

FIG. 2 is a front view thereof;

FIG. 3 is a bottom plan view thereof;

FIG. 4 is a rear view thereof;

FIG. 5 is a left-hand side view thereof;

FIG. 6 is a right-hand side view thereof;

FIG. 7 is a sectional view taken generally along line 7—7 of FIG. 2; and,

FIG. 8 is a sectional view taken generally along line 8—8 of FIG. 5.

The broken lines are included for the purpose of illustrating non-claimed subject matter and form no part of the claimed design.

**1 Claim, 3 Drawing Sheets**

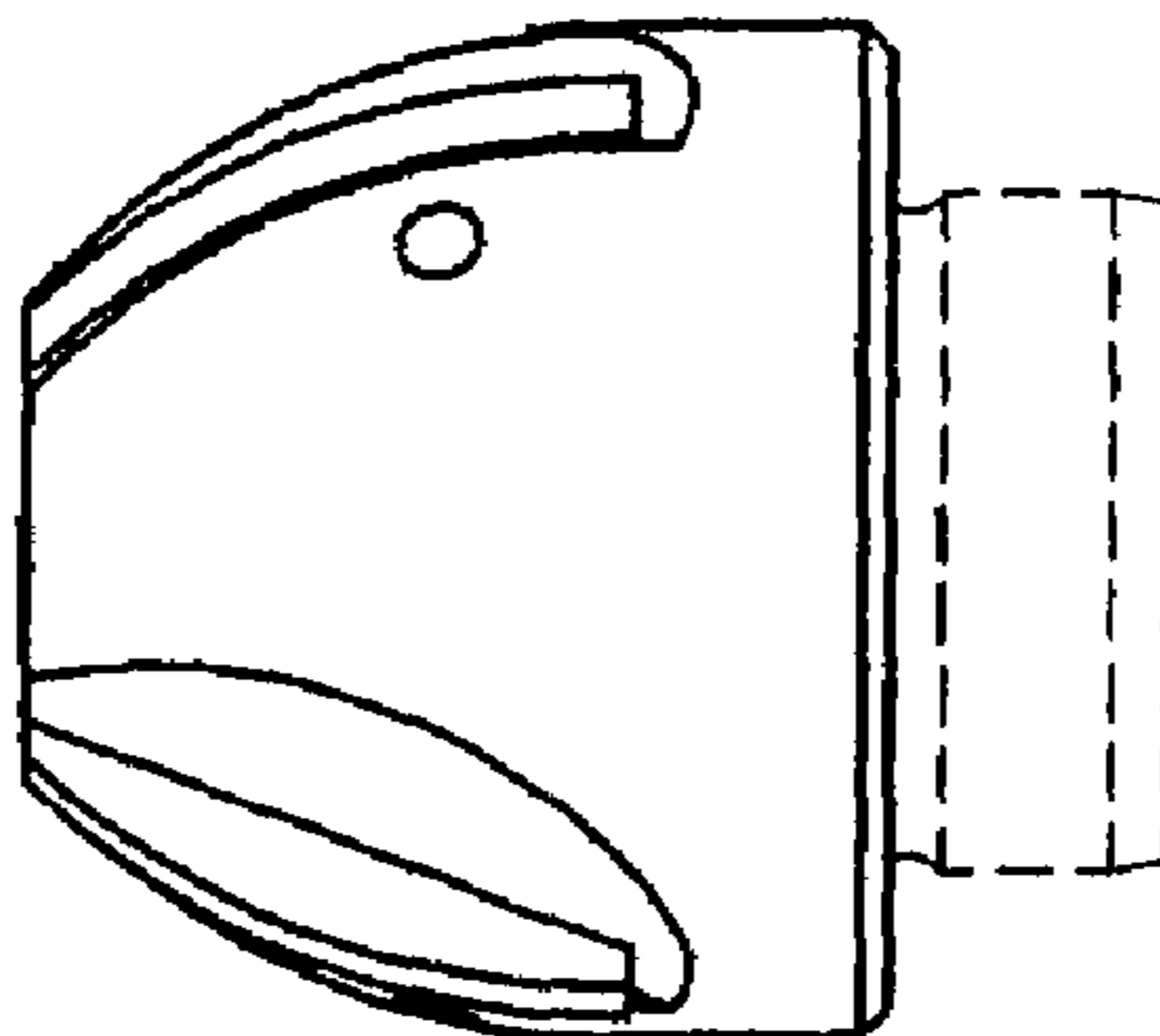


Fig. 1

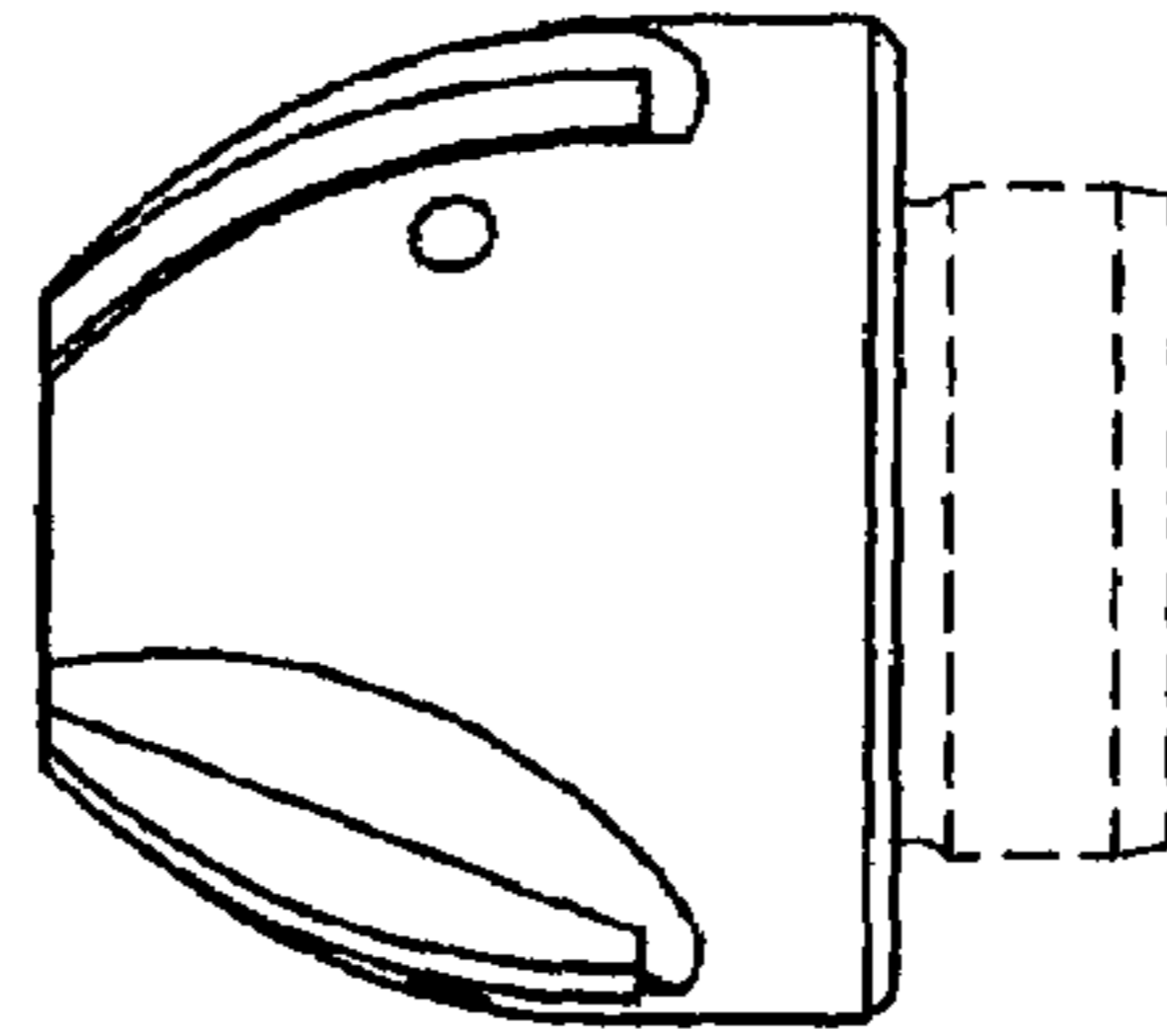


Fig. 2

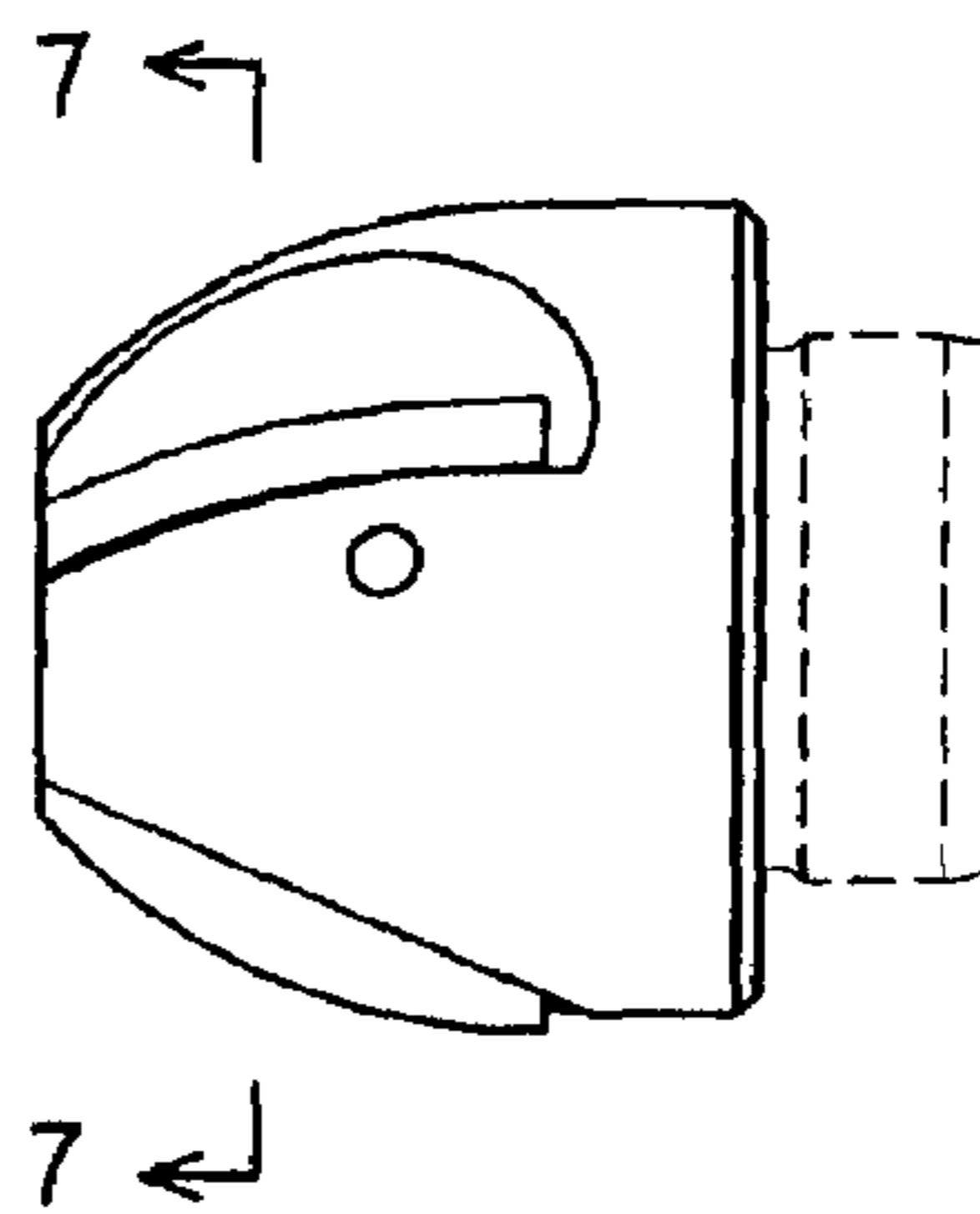


Fig. 3

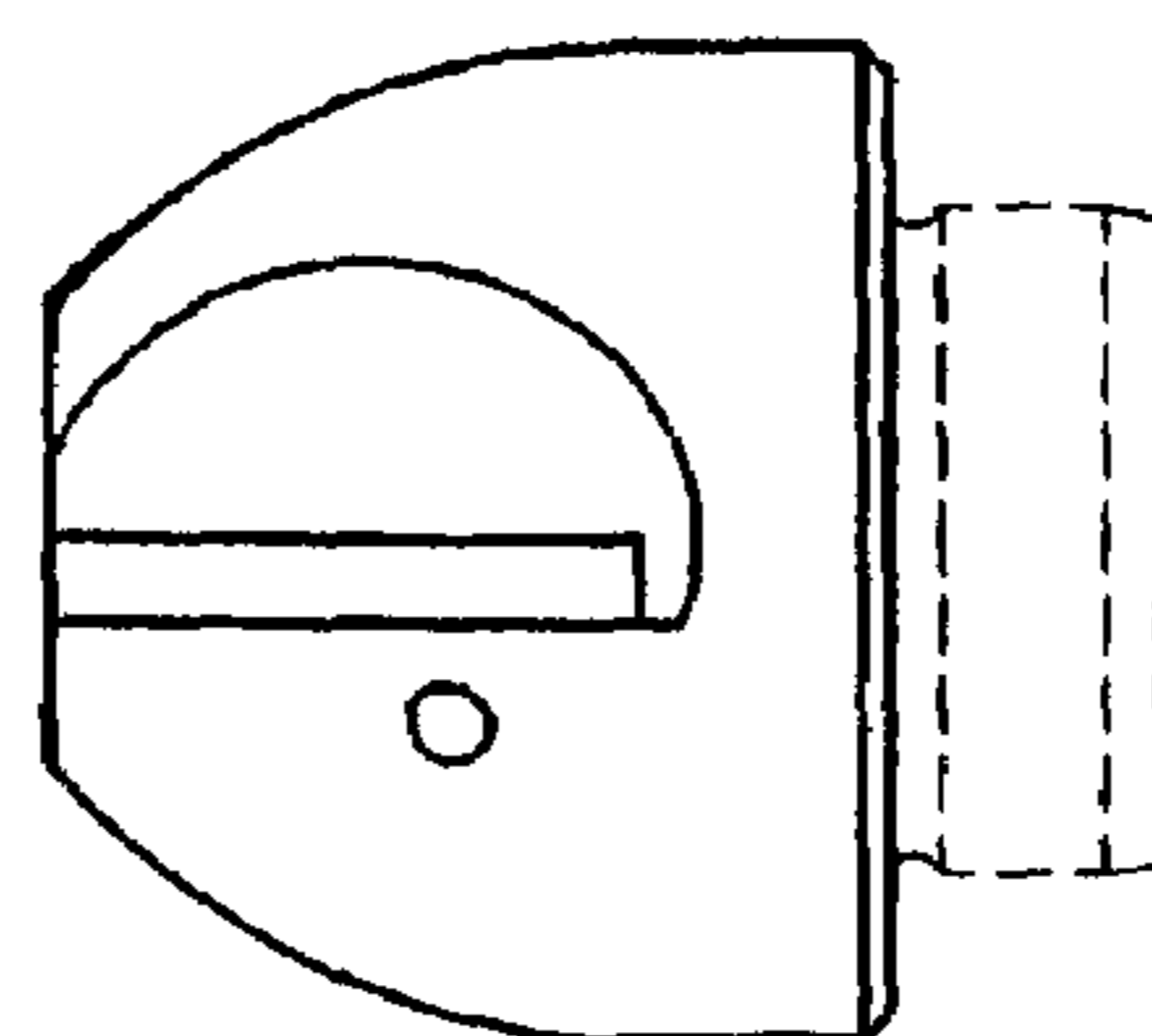


Fig. 4

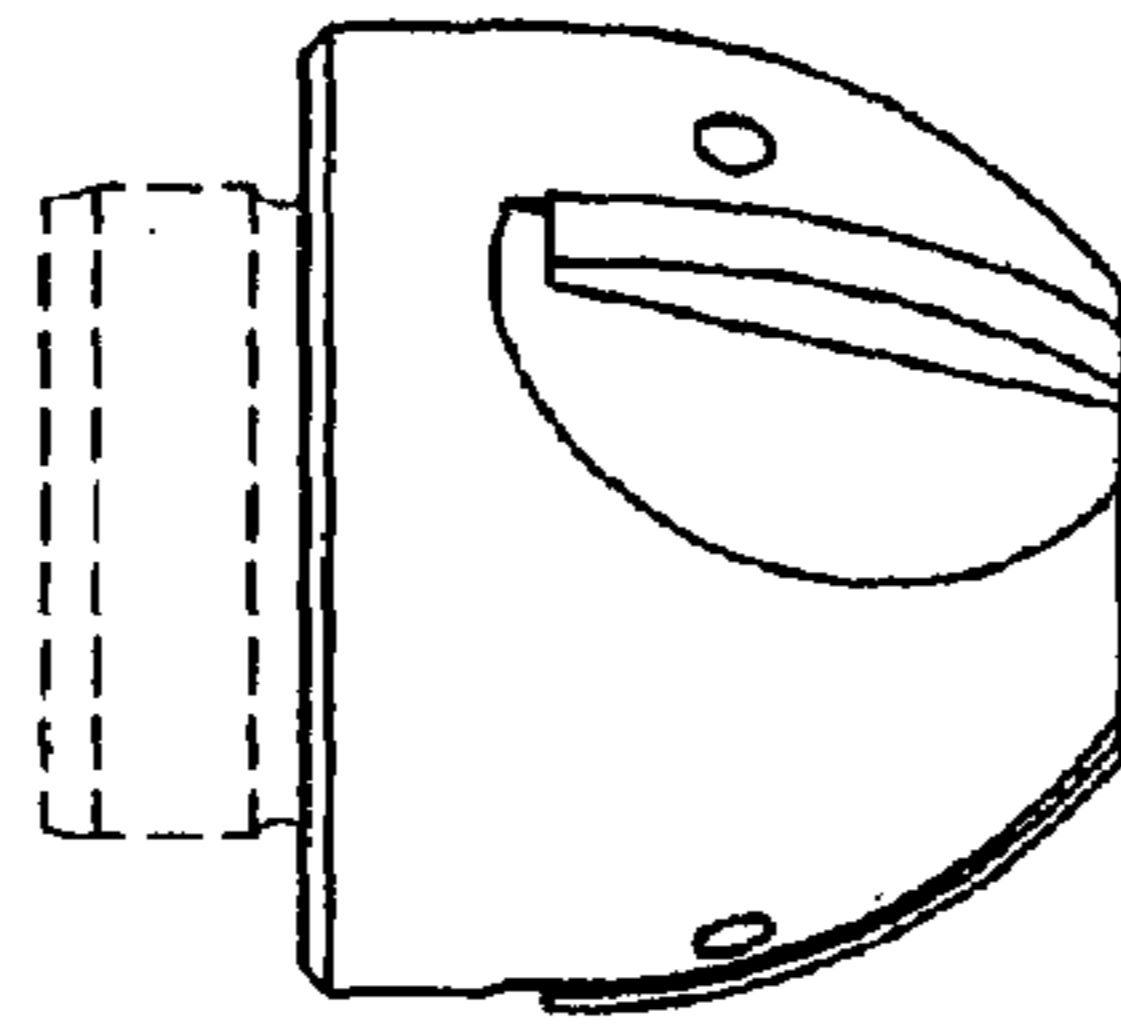


Fig. 5

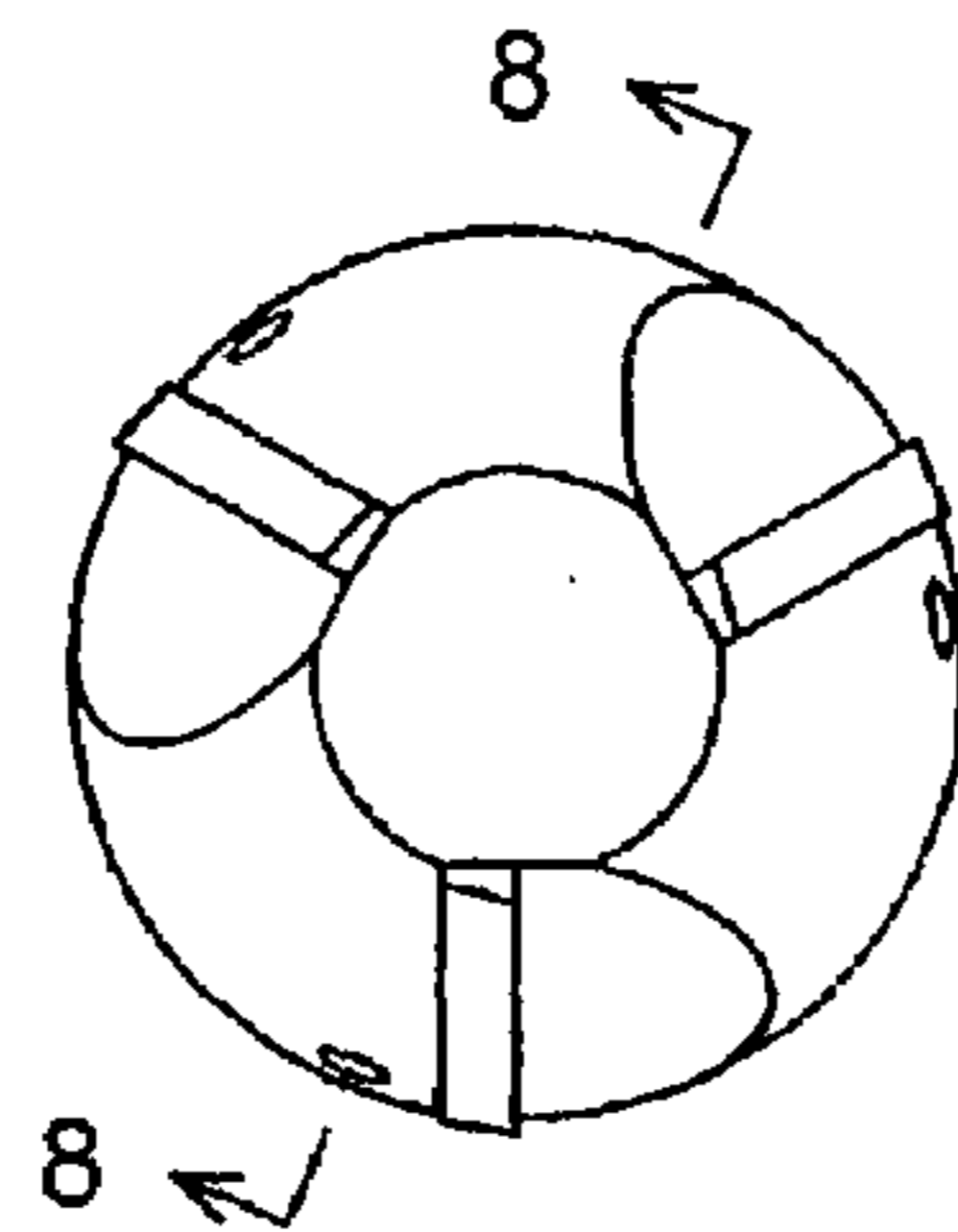


Fig. 6

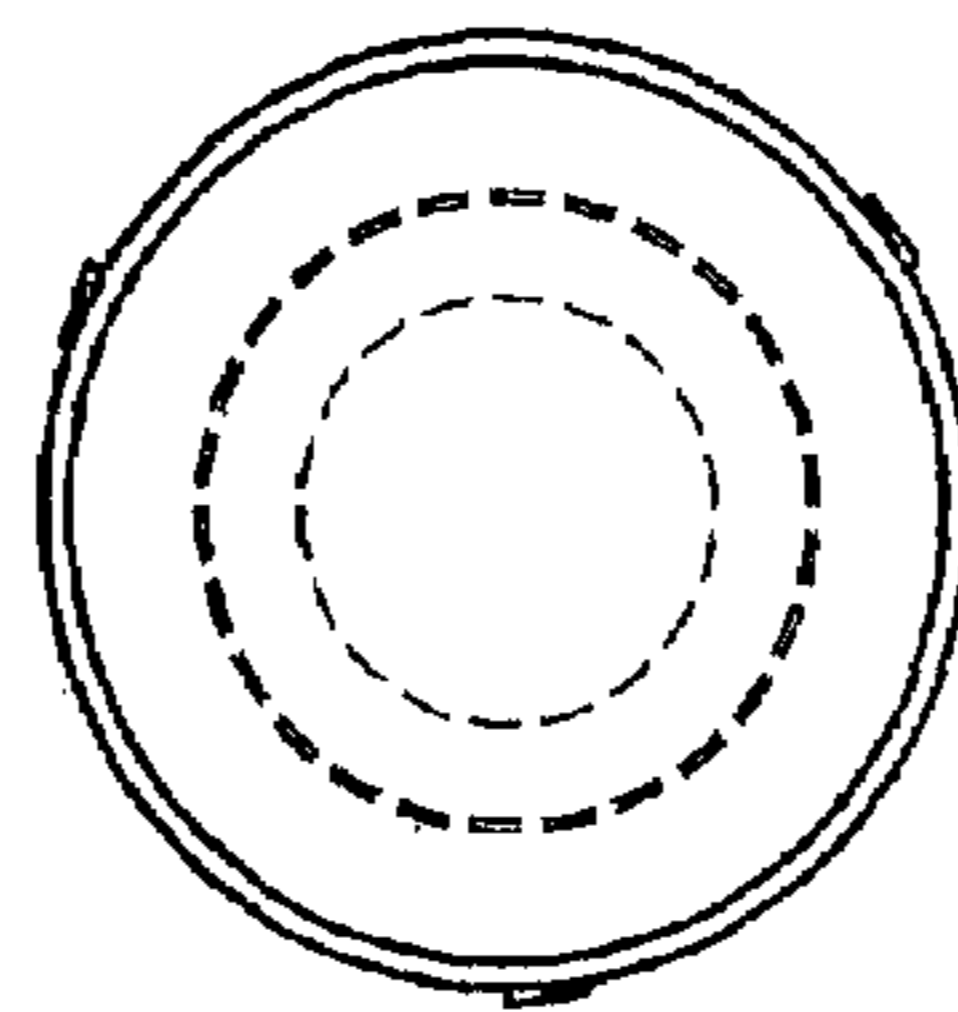


Fig. 7

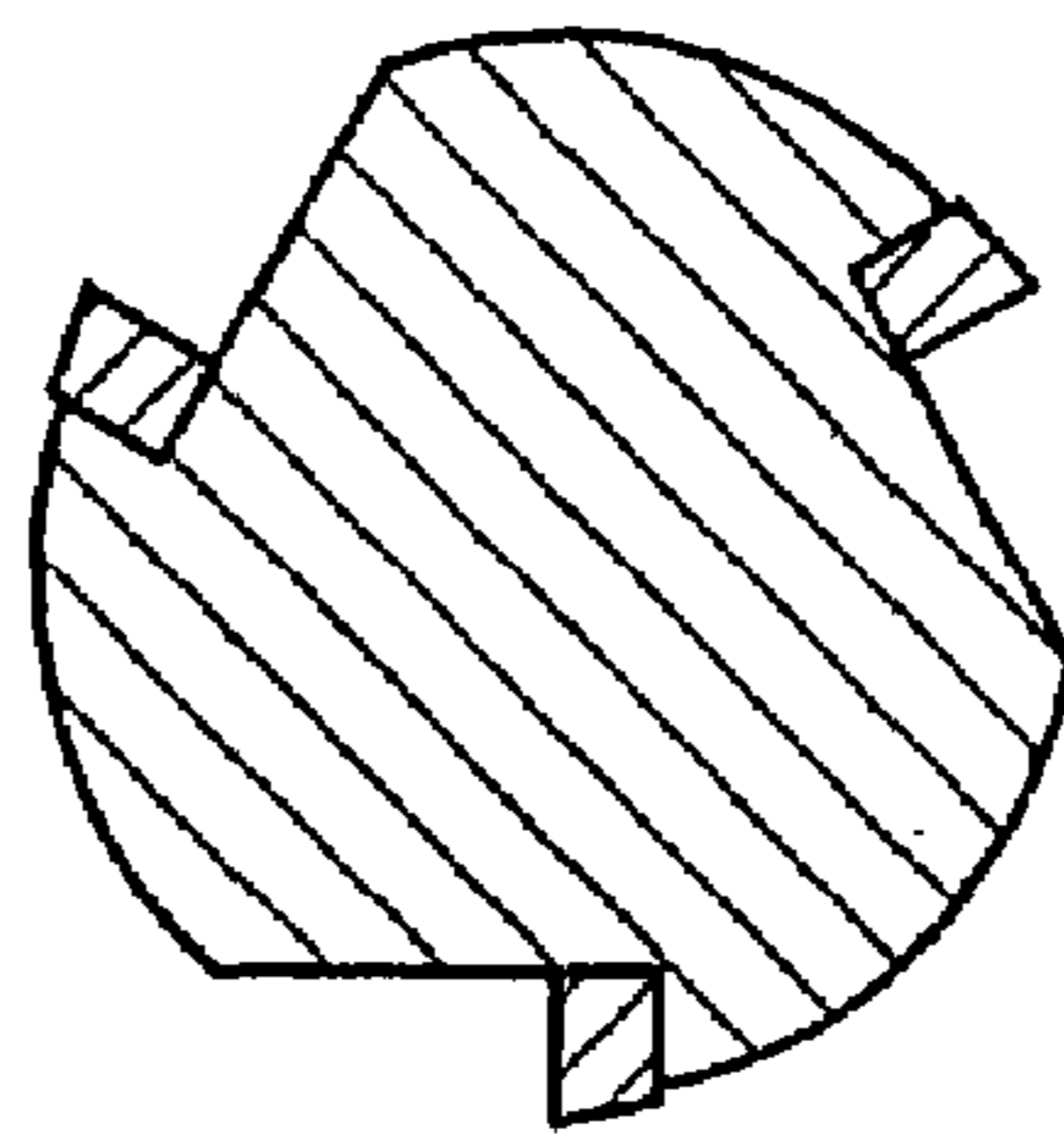


Fig. 8

