



US00D472797S

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

(10) **Patent No.: US D472,797 S**

(45) **Date of Patent: ** Apr. 8, 2003**

- (54) **CAPTIVE SCREW**
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- (73) Assignee: **Southco, Inc.**, Concordville, PA (US)
- (**) Term: **14 Years**
- (21) Appl. No.: **29/120,902**
- (22) Filed: **Mar. 28, 2000**

Related U.S. Application Data

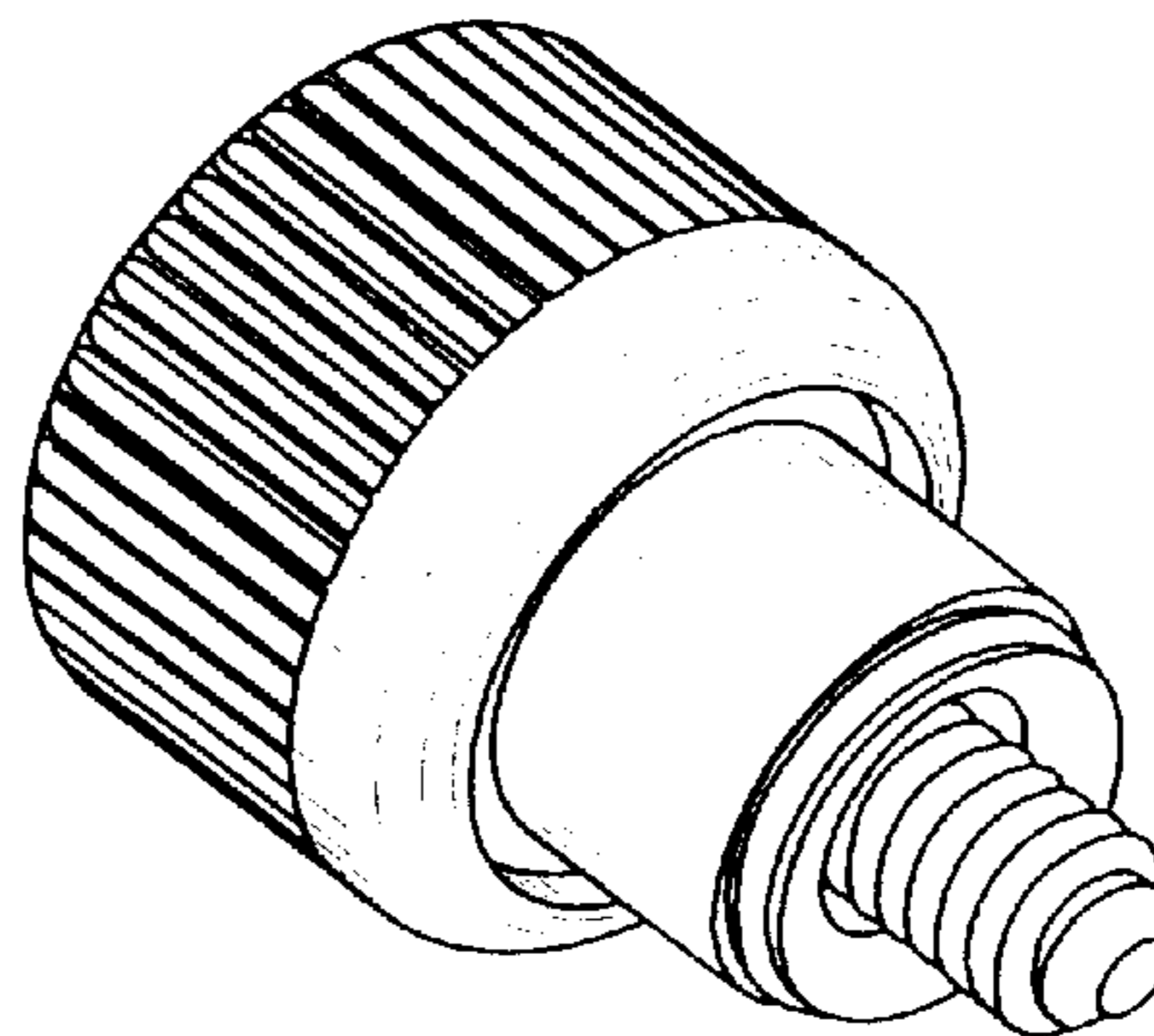
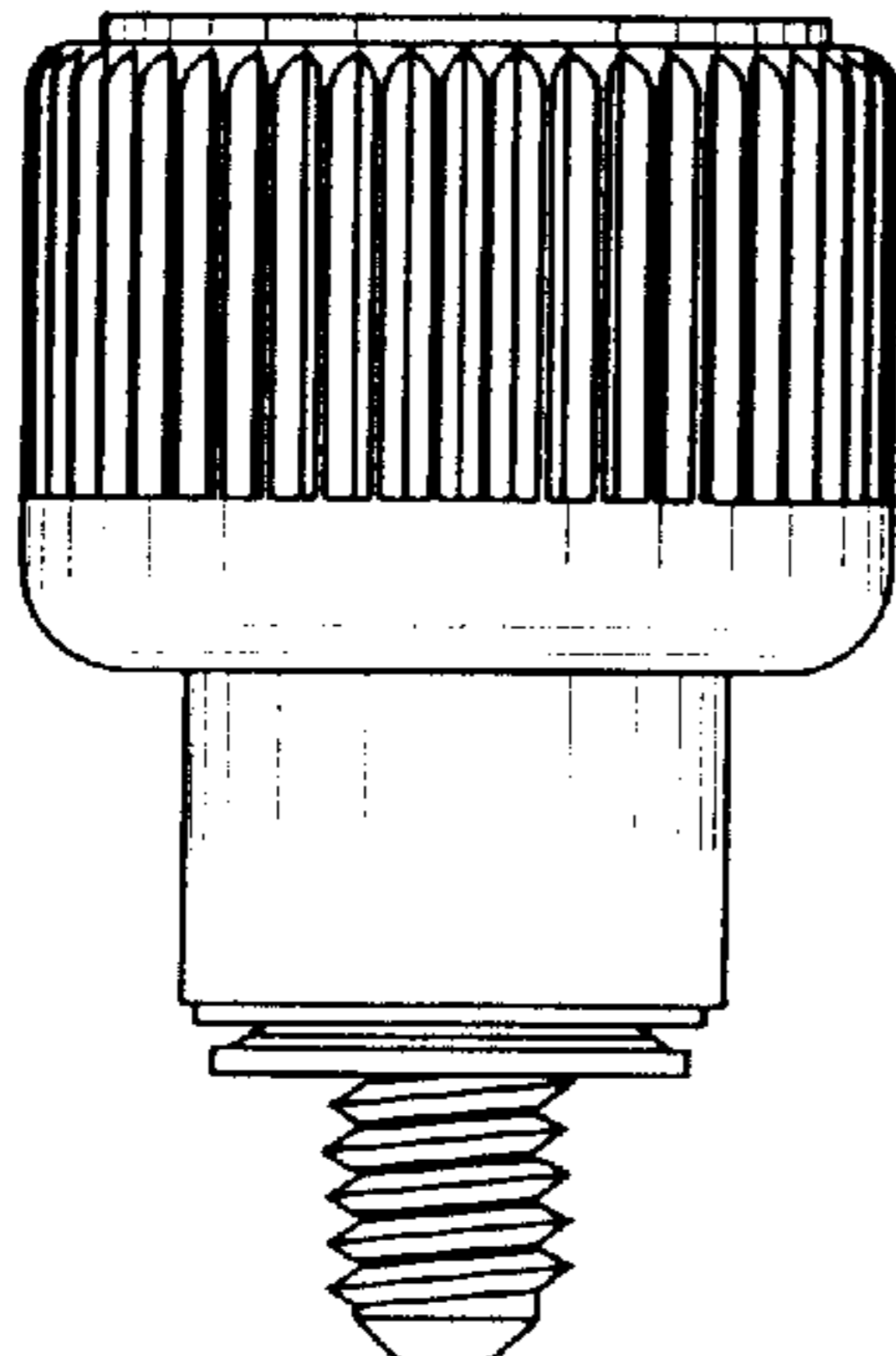
- (63) Continuation-in-part of application No. 29/107,132, filed on Jun. 28, 1999, now abandoned, which is a continuation-in-part of application No. 29/089,913, filed on Jun. 25, 1998, now abandoned.
- (51) **LOC (7) Cl. 08-08**
- (52) **U.S. Cl. D8/387**
- (58) **Field of Search D8/310, 312, 347, D8/382, 387, 394, 397; 411/107, 108, 349, 350, 352, 353, 5, 103, 222, 366, 367, 500; 248/501; 16/110.1, 111.1, 412, 413, 414, 417, 422, 430**

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Assistant Examiner—Clare E. Hefflin
 (74) *Attorney, Agent, or Firm*—Paul & Paul

(57) CLAIM

The ornamental design for a captive screw, as shown and described.

DESCRIPTION

FIG. 1 is a side elevation of a captive screw showing our new design, all remaining sides being identical;
 FIG. 2 is a perspective view thereof;
 FIG. 3 is a bottom plan view thereof;

FIG. 4 is a top plan view thereof showing a six lobed driver recess;
 FIG. 5 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;
 FIG. 6 is an alternate top plan view thereof showing a slotted driver recess;
 FIG. 7 is an alternate top plan view thereof showing a Phillips driver recess;
 FIG. 8 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;
 FIG. 9 is a side elevation of a captive screw showing a second embodiment of our new design, all remaining sides being identical;
 FIG. 10 is a perspective view thereof;
 FIG. 11 is a bottom plan view thereof;
 FIG. 12 is a top plan view thereof showing a six lobed driver recess;
 FIG. 13 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;
 FIG. 14 is an alternate top plan view thereof showing a slotted driver recess;
 FIG. 15 is an alternate top plan view thereof showing a Phillips driver recess;
 FIG. 16 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;
 FIG. 17 is a side elevation of a captive screw showing a third embodiment of our new design, all remaining sides being identical;
 FIG. 18 is a perspective view thereof;
 FIG. 19 is a bottom plan view thereof;
 FIG. 20 is a top plan view thereof showing a six lobed driver recess;
 FIG. 21 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;
 FIG. 22 is an alternate top plan view thereof showing a slotted driver recess;
 FIG. 23 is an alternate top plan view thereof showing a Phillips driver recess;
 FIG. 24 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;
 FIG. 25 is a side elevation of a captive screw showing a fourth embodiment of our new design, all remaining sides being identical;
 FIG. 26 is a perspective view thereof;
 FIG. 27 is a bottom plan view thereof;
 FIG. 28 is a top plan view thereof showing a six lobed driver recess;
 FIG. 29 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;
 FIG. 30 is an alternate top plan view thereof showing a slotted driver recess;
 FIG. 31 is an alternate top plan view thereof showing a Phillips driver recess;
 FIG. 32 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;
 FIG. 33 is a side elevation of a captive screw showing a fifth embodiment of our new design, all remaining sides being identical;
 FIG. 34 is a perspective view thereof;
 FIG. 35 is a bottom plan view thereof;
 FIG. 36 is a top plan view thereof showing a six lobed driver recess;
 FIG. 37 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 38 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 39 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 40 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 41 is a side elevation of a captive screw showing a sixth embodiment of our new design, all remaining sides being identical;

FIG. 42 is a perspective view thereof;

FIG. 43 is a bottom plan view thereof;

FIG. 44 is a top plan view thereof showing a six lobed driver recess;

FIG. 45 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 46 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 47 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 48 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 49 is a side elevation of a captive screw showing a seventh embodiment of our new design, all remaining sides being identical;

FIG. 50 is a perspective view thereof;

FIG. 51 is a bottom plan view thereof;

FIG. 52 is a top plan view thereof showing a six lobed driver recess;

FIG. 53 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 54 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 55 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 56 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 57 is a side elevation of a captive screw showing an eighth embodiment of our new design, all remaining sides being identical;

FIG. 58 is a perspective view thereof;

FIG. 59 is a bottom plan view thereof;

FIG. 60 is a top plan view thereof showing a six lobed driver recess;

FIG. 61 is an alternate top plan view thereof showing a combined six lobed/ slotted driver recess;

FIG. 62 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 63 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 64 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 65 is a side elevation of a captive screw showing a ninth embodiment of our new design, all remaining sides being identical;

FIG. 66 is a perspective view thereof;

FIG. 67 is a bottom plan view thereof;

FIG. 68 is a top plan view thereof showing a six lobed driver recess;

FIG. 69 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 70 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 71 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 72 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 73 is a side elevation of a captive screw showing a tenth embodiment of our new design, all remaining sides being identical;

FIG. 74 is a perspective view thereof;

FIG. 75 is a bottom plan view thereof;

FIG. 76 is a top plan view thereof showing a six lobed driver recess;

FIG. 77 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 78 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 79 is an alternate top plan view thereof showing a Phillips driver recess;

FIG. 80 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess;

FIG. 81 is a side elevation of a captive screw showing an eleventh embodiment of our new design, all remaining sides being identical;

FIG. 82 is a perspective view thereof;

FIG. 83 is a bottom plan view thereof;

FIG. 84 is a top plan view thereof showing a six lobed driver recess;

FIG. 85 is an alternate top plan view thereof showing a combined six lobed/slotted driver recess;

FIG. 86 is an alternate top plan view thereof showing a slotted driver recess;

FIG. 87 is an alternate top plan view thereof showing a Phillips driver recess; and,

FIG. 88 is an alternate top plan view thereof showing a combined slotted/Phillips driver recess.

It is understood that for each alternate top plan view in each embodiment in the drawings, the bottom plan, perspective and side elevations are identical to those shown.

1 Claim, 11 Drawing Sheets

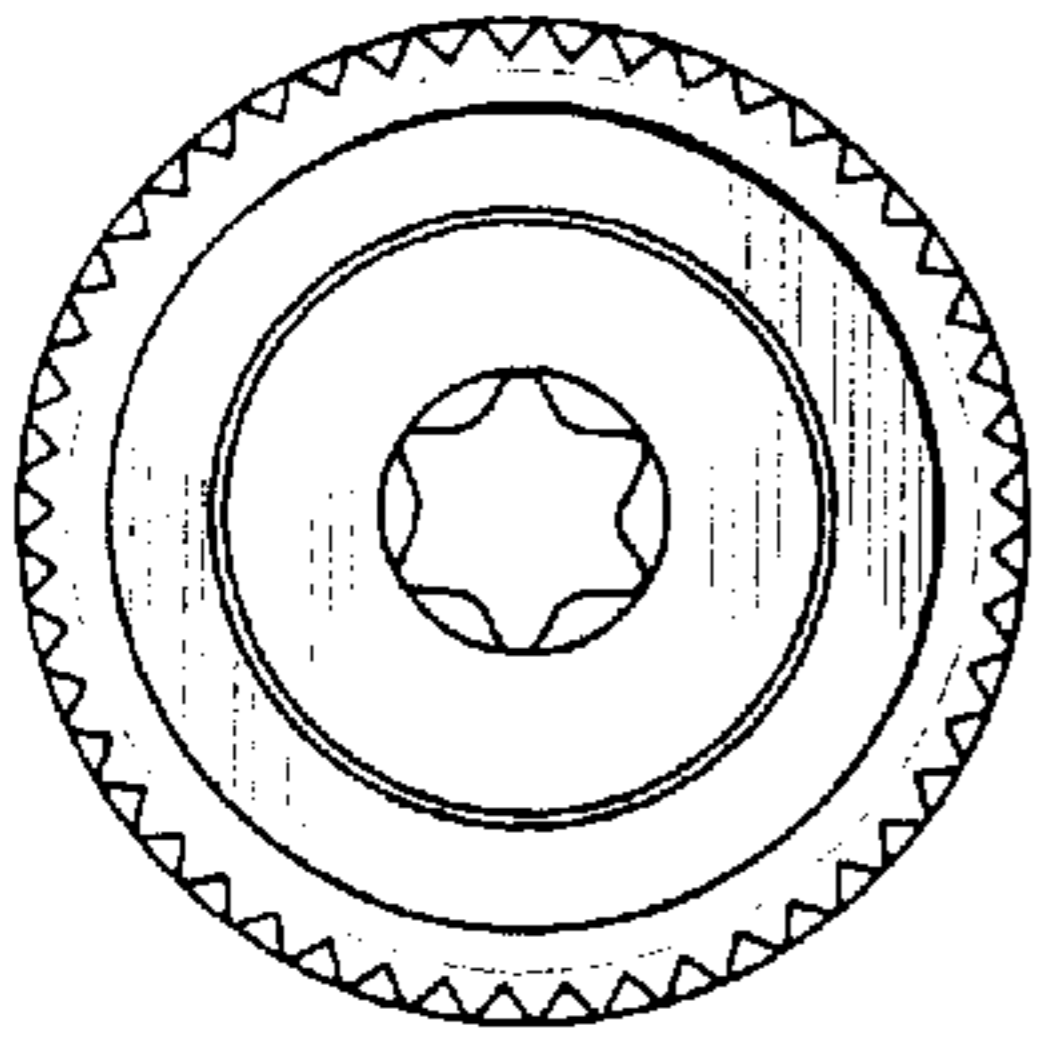


FIG. 4

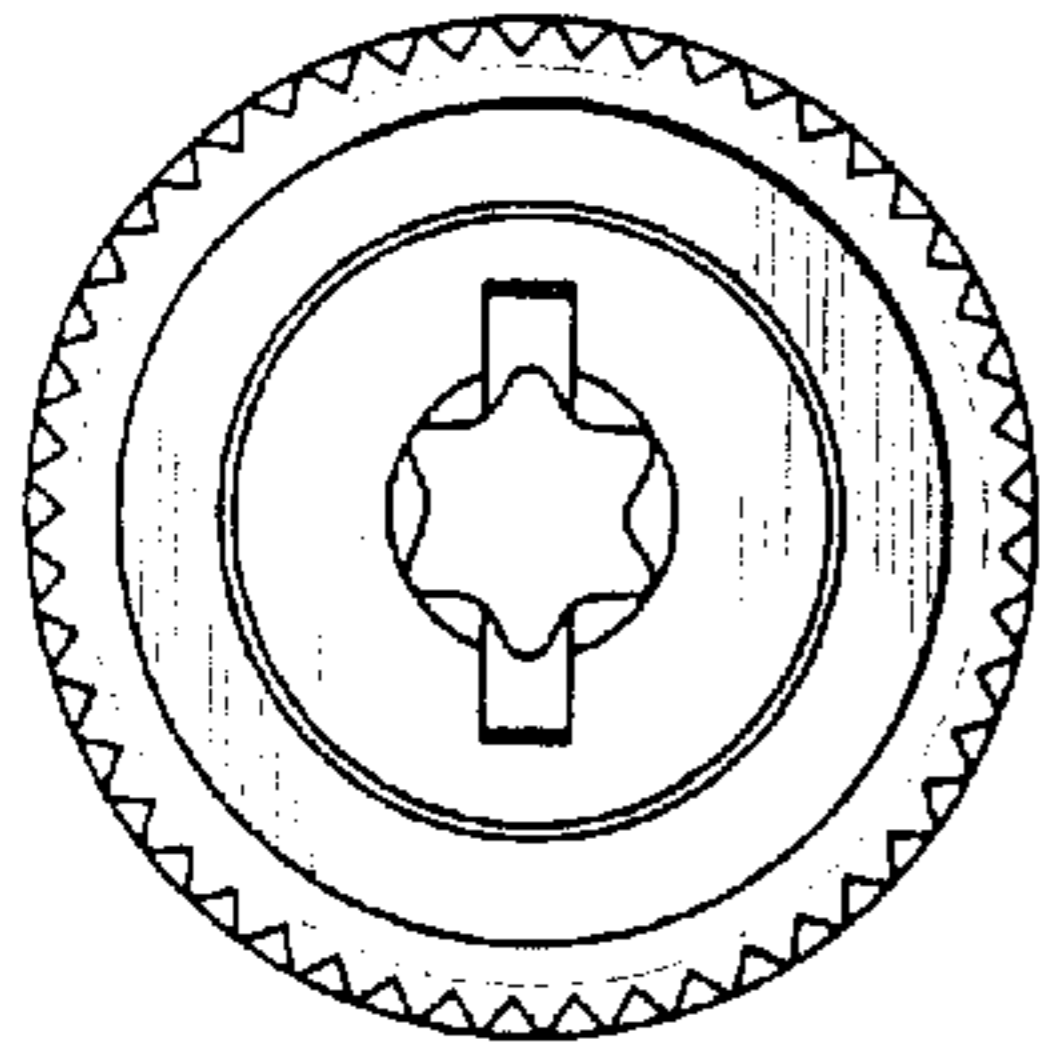


FIG. 5

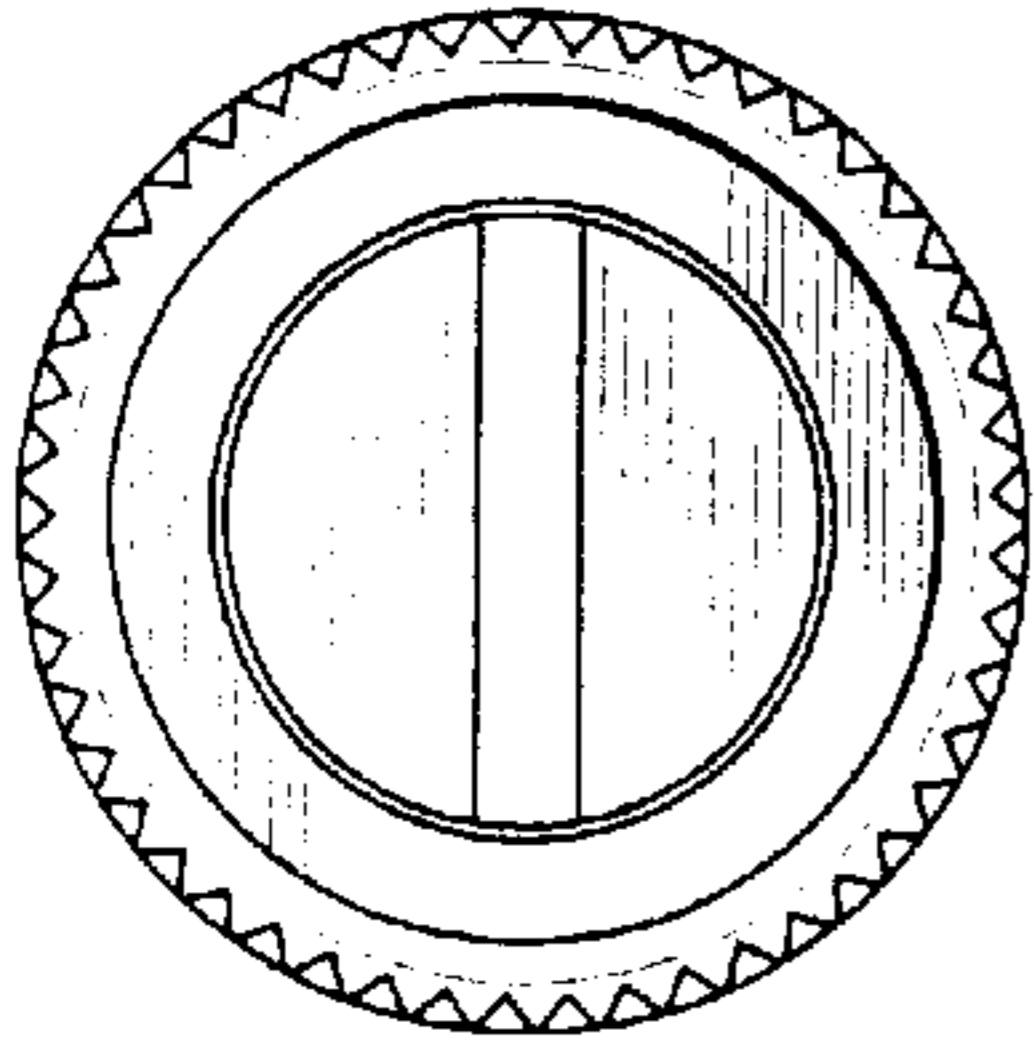


FIG. 6

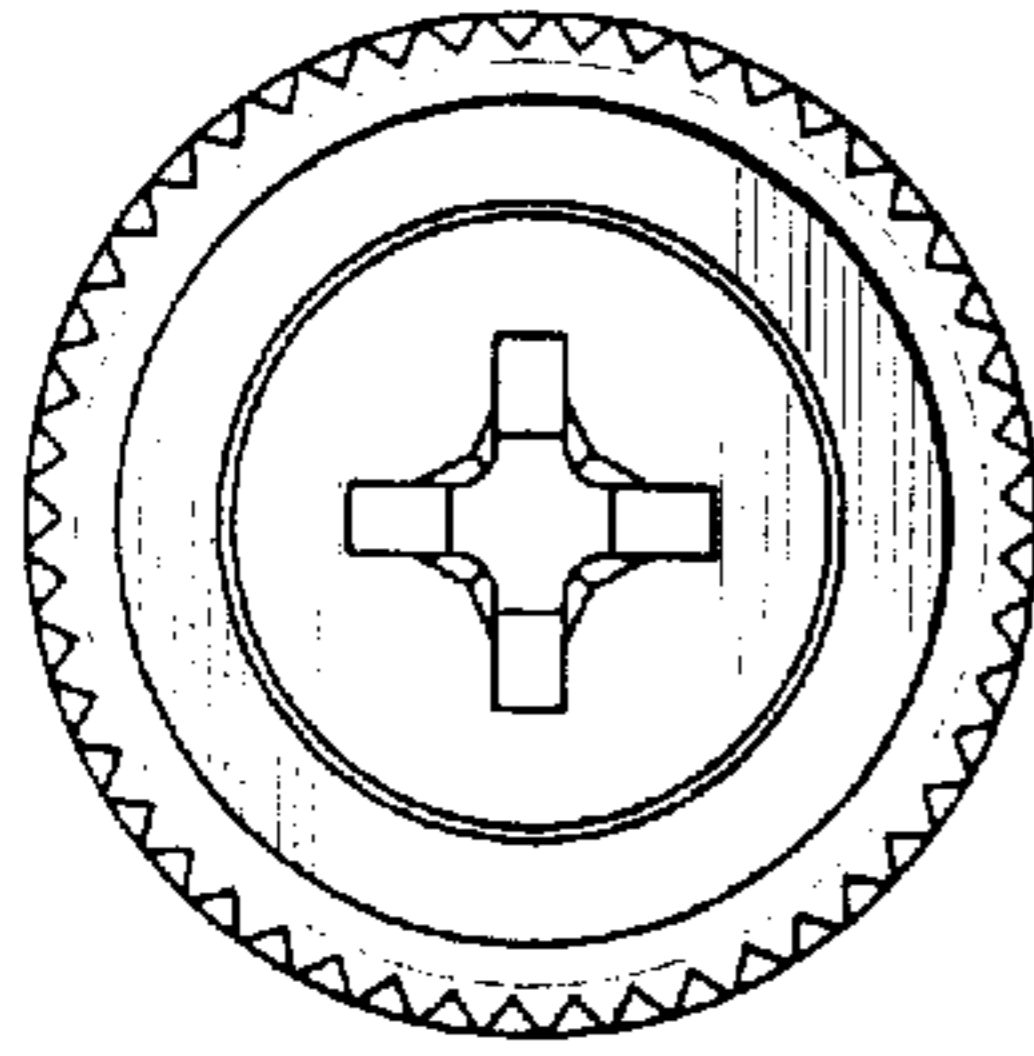


FIG. 7

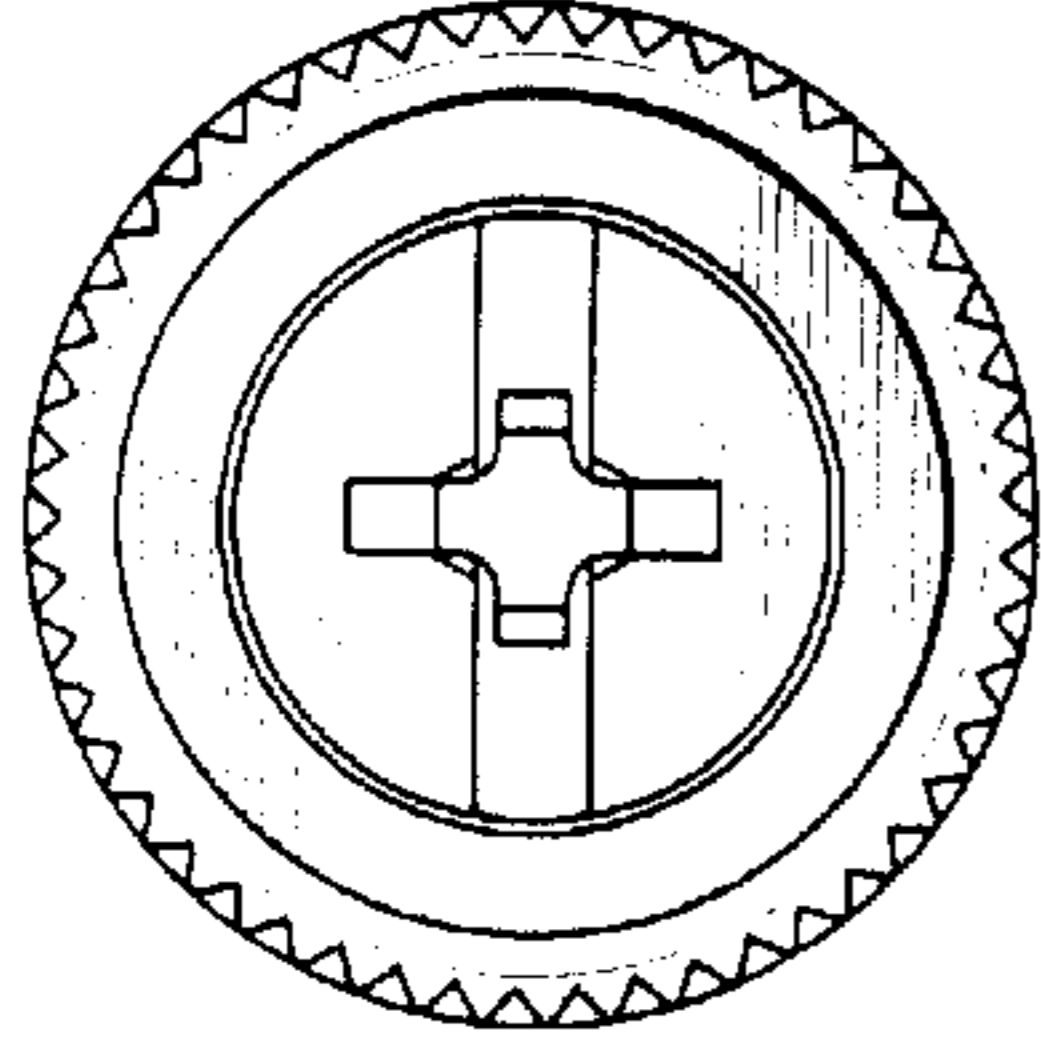


FIG. 8

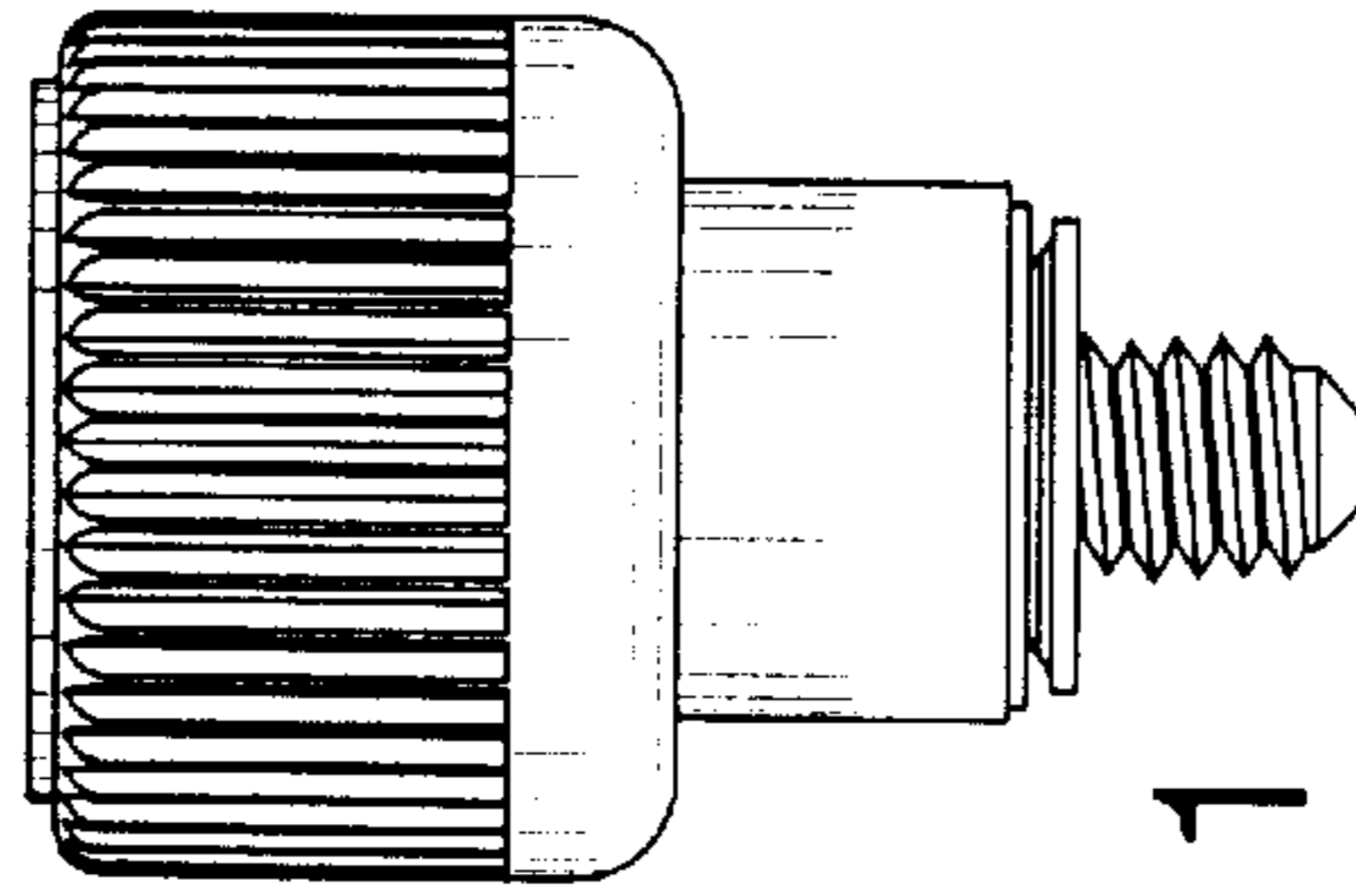


FIG. 1

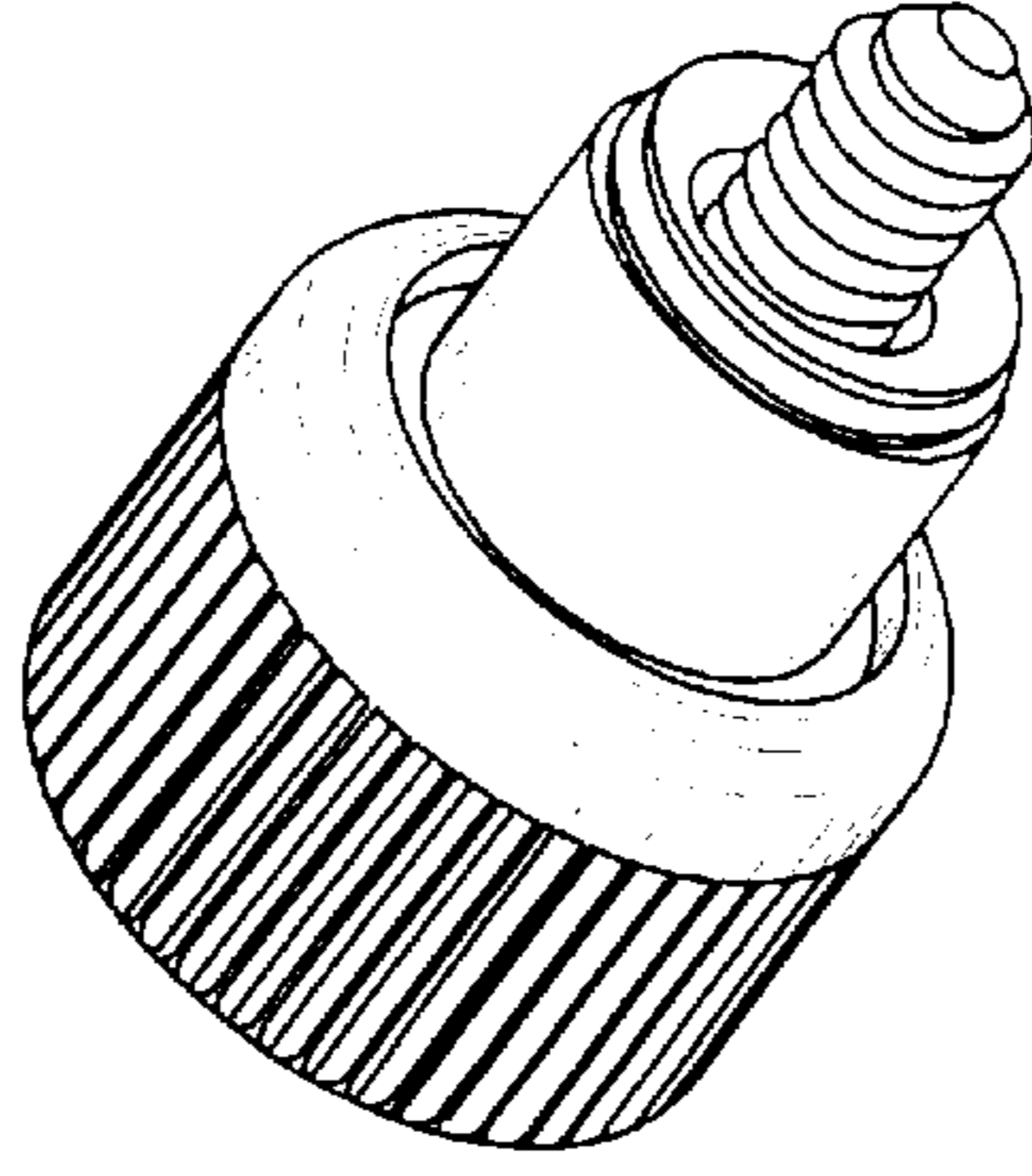


FIG. 2

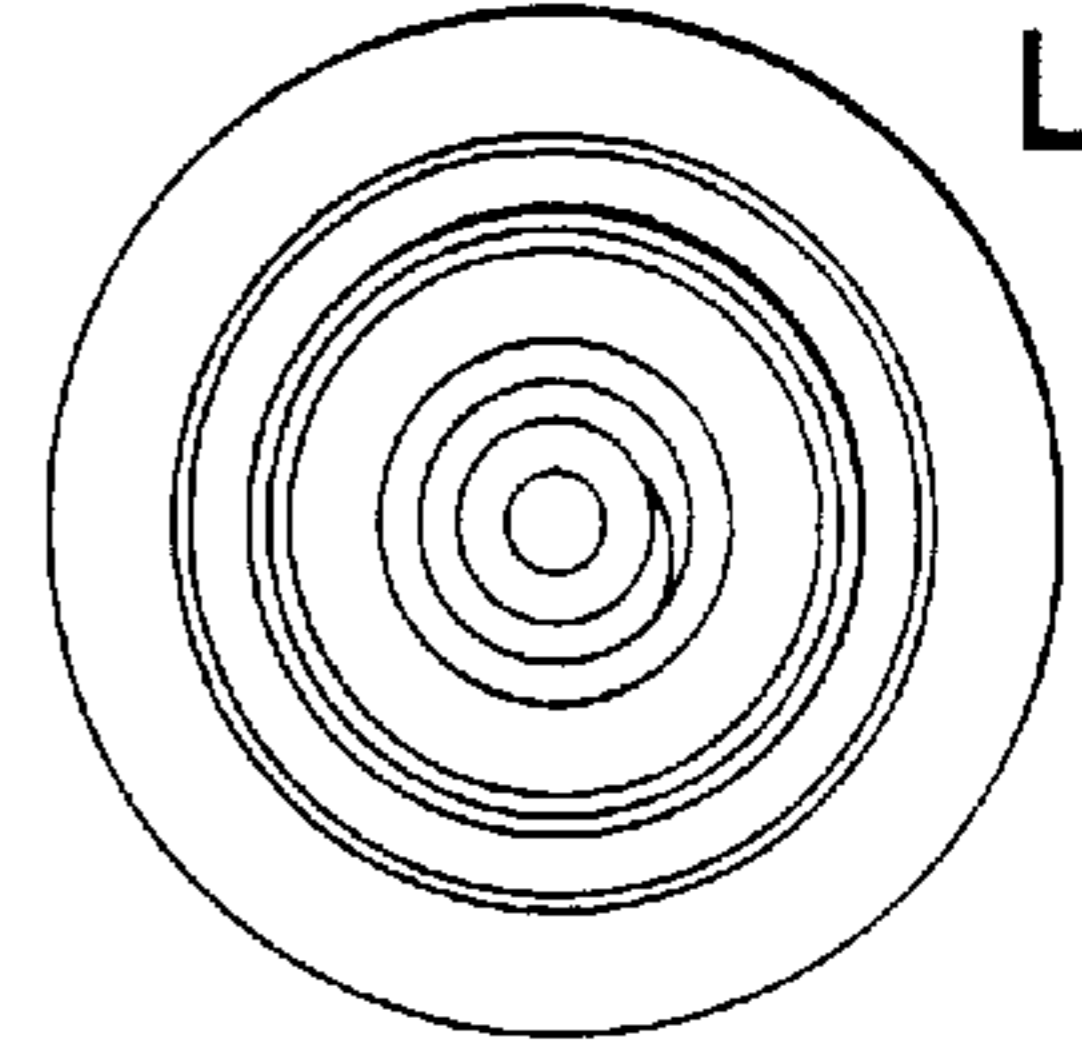


FIG. 3

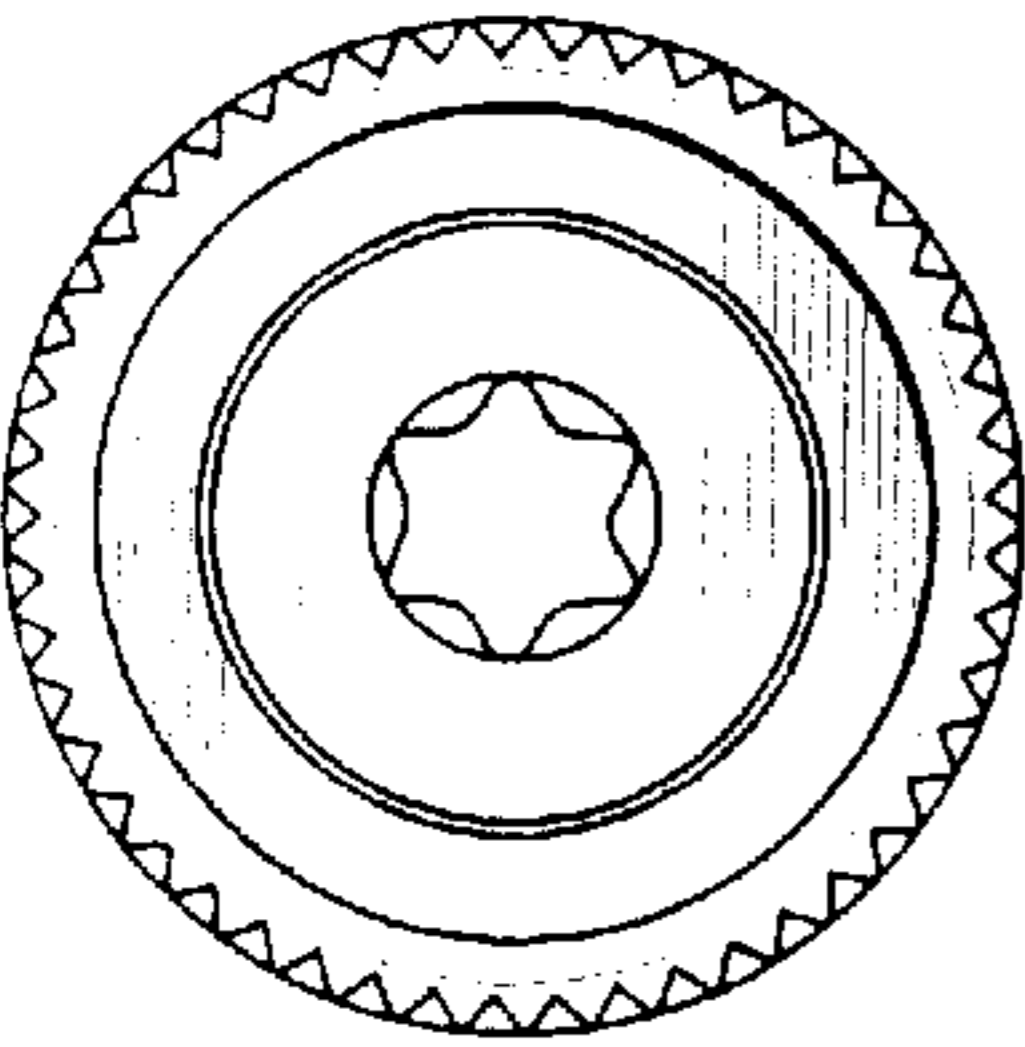


FIG. 12

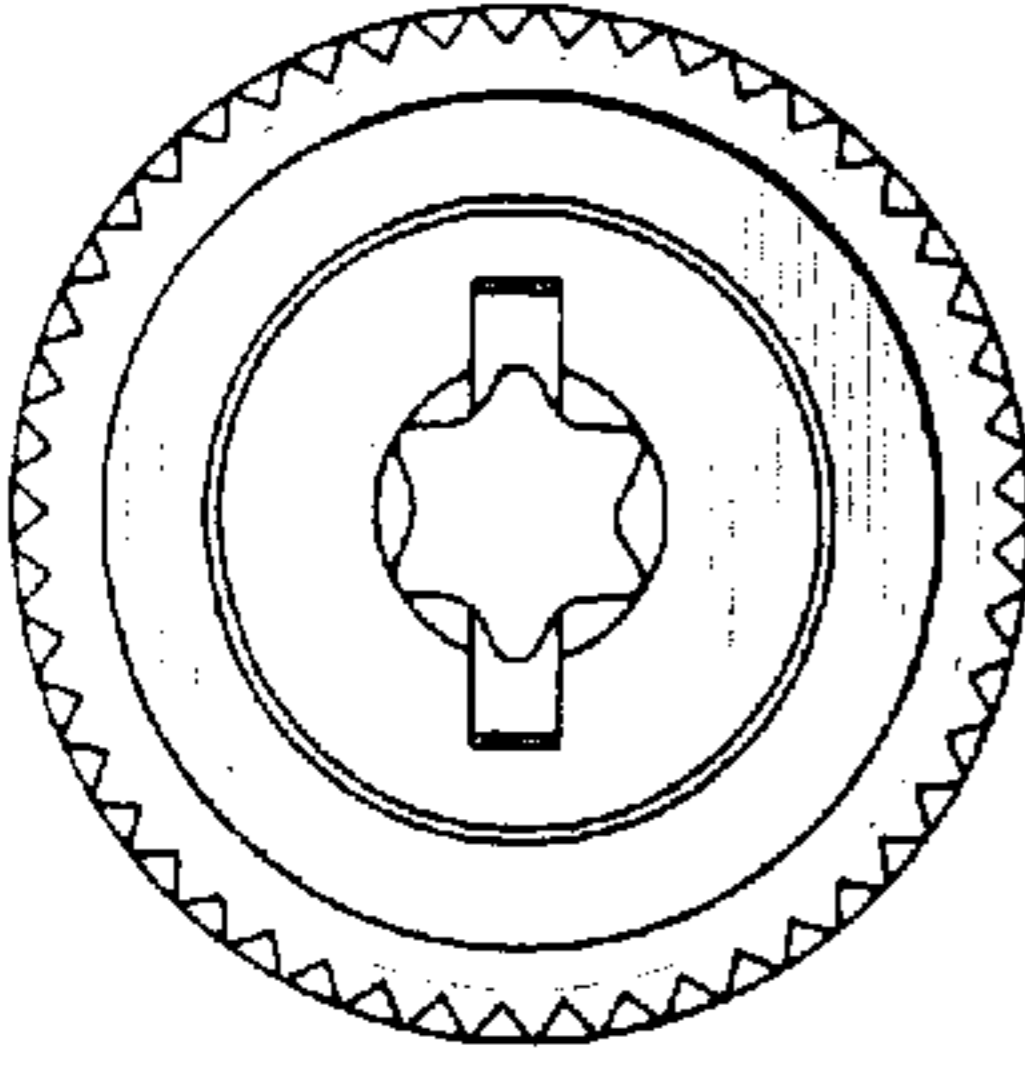


FIG. 13

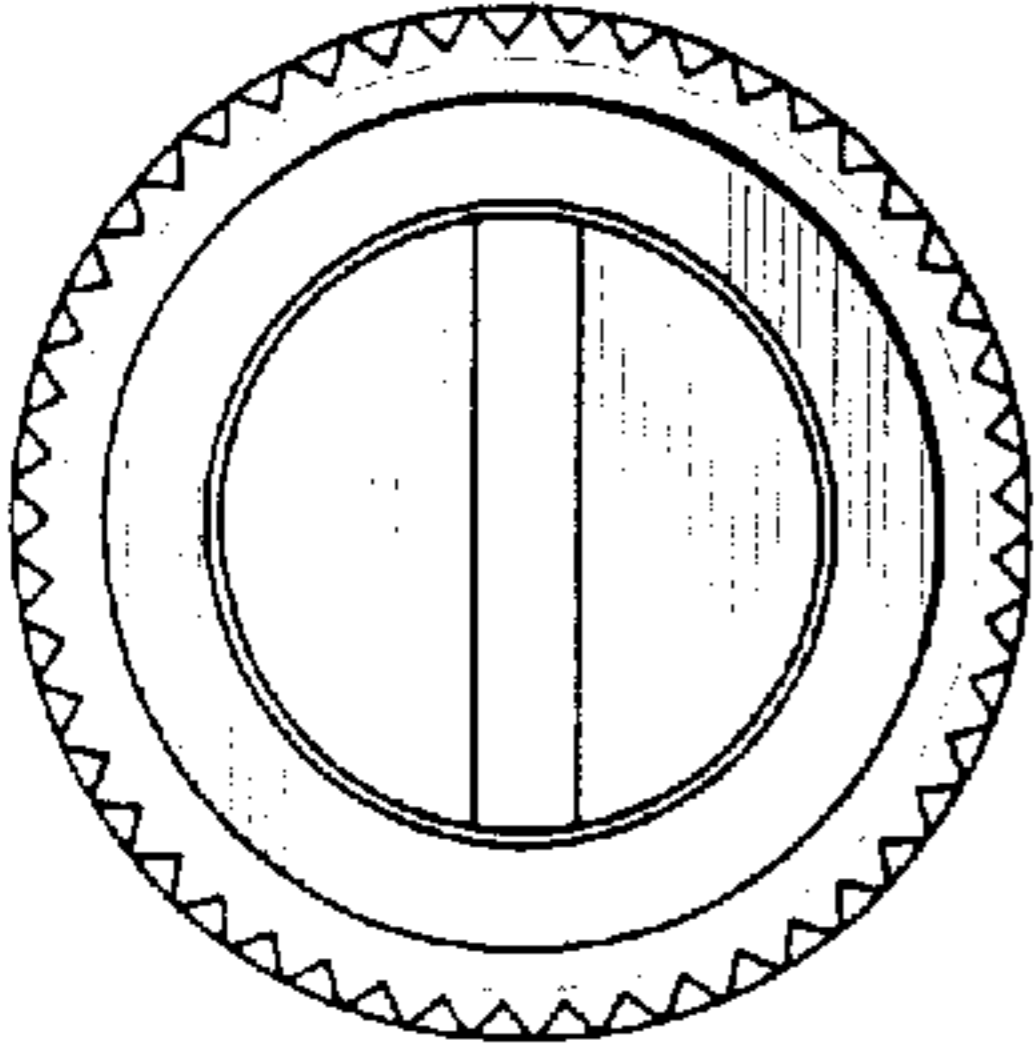


FIG. 14

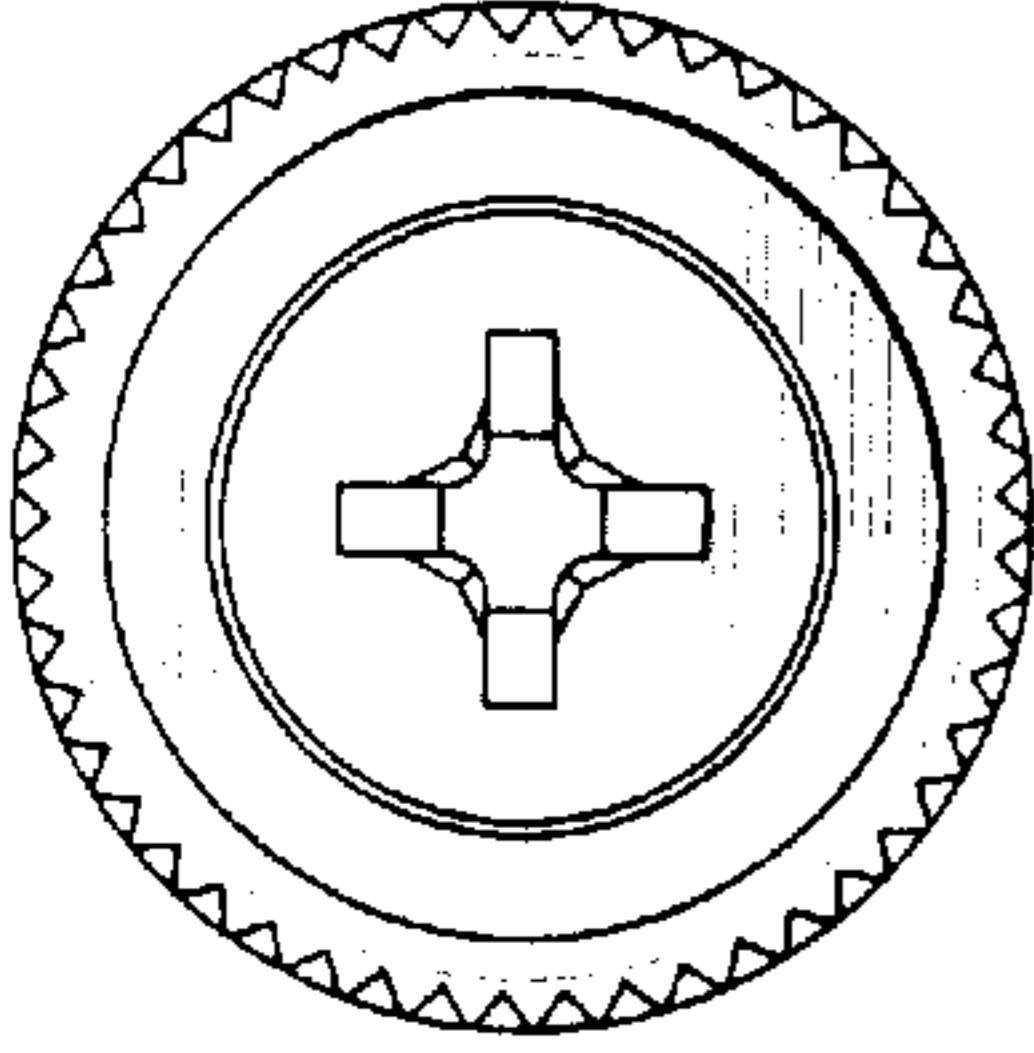


FIG. 15

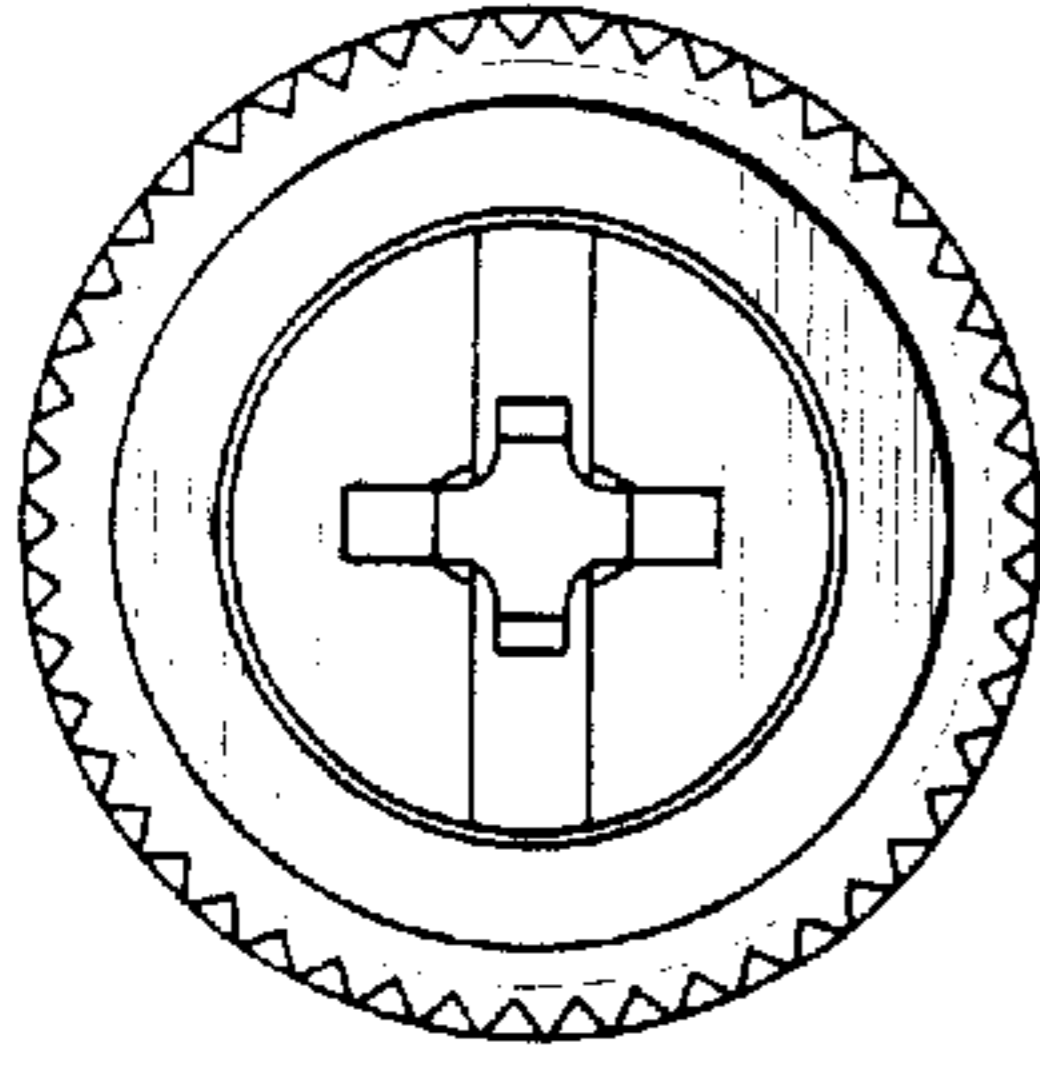


FIG. 16

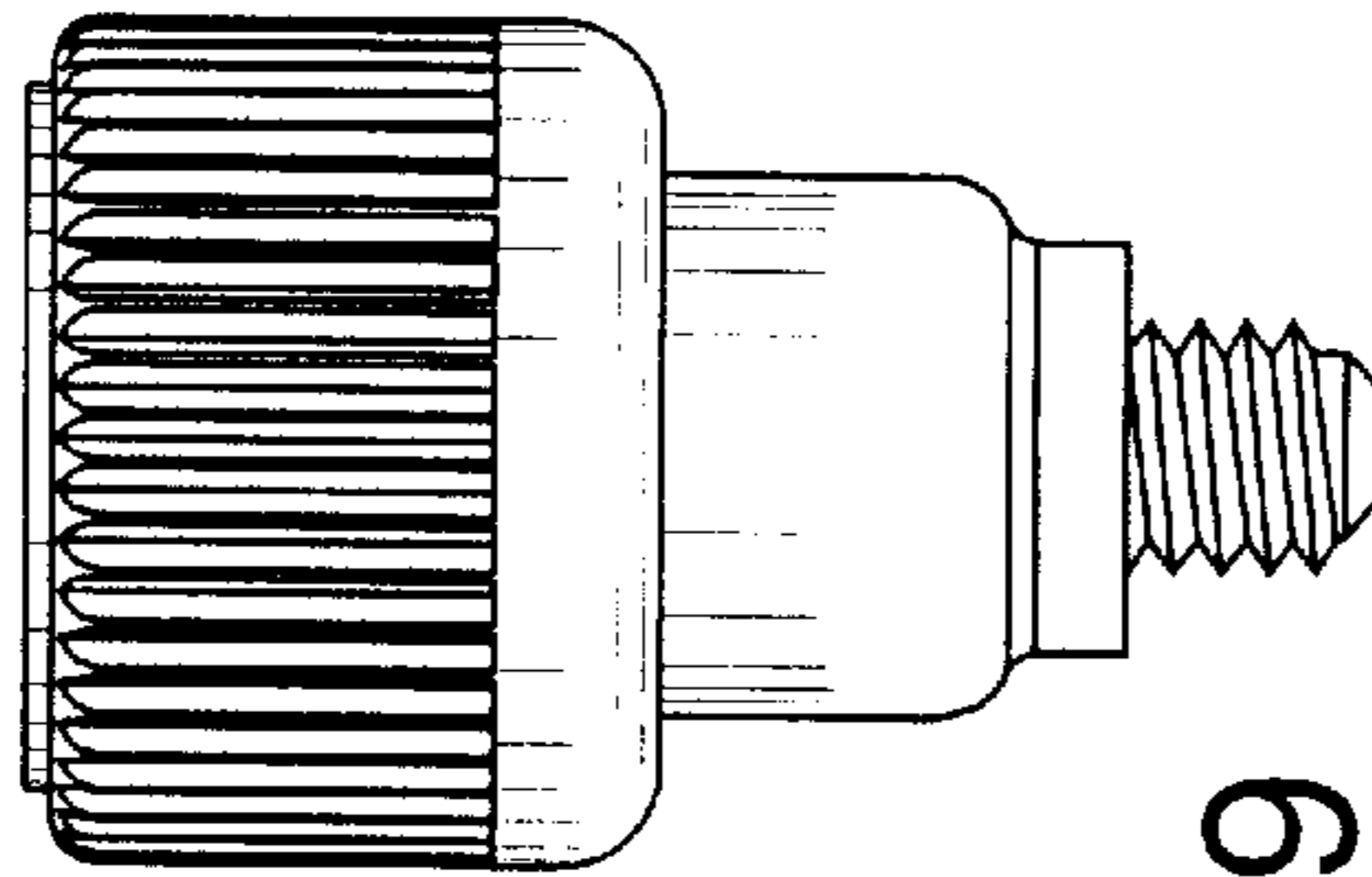


FIG. 9

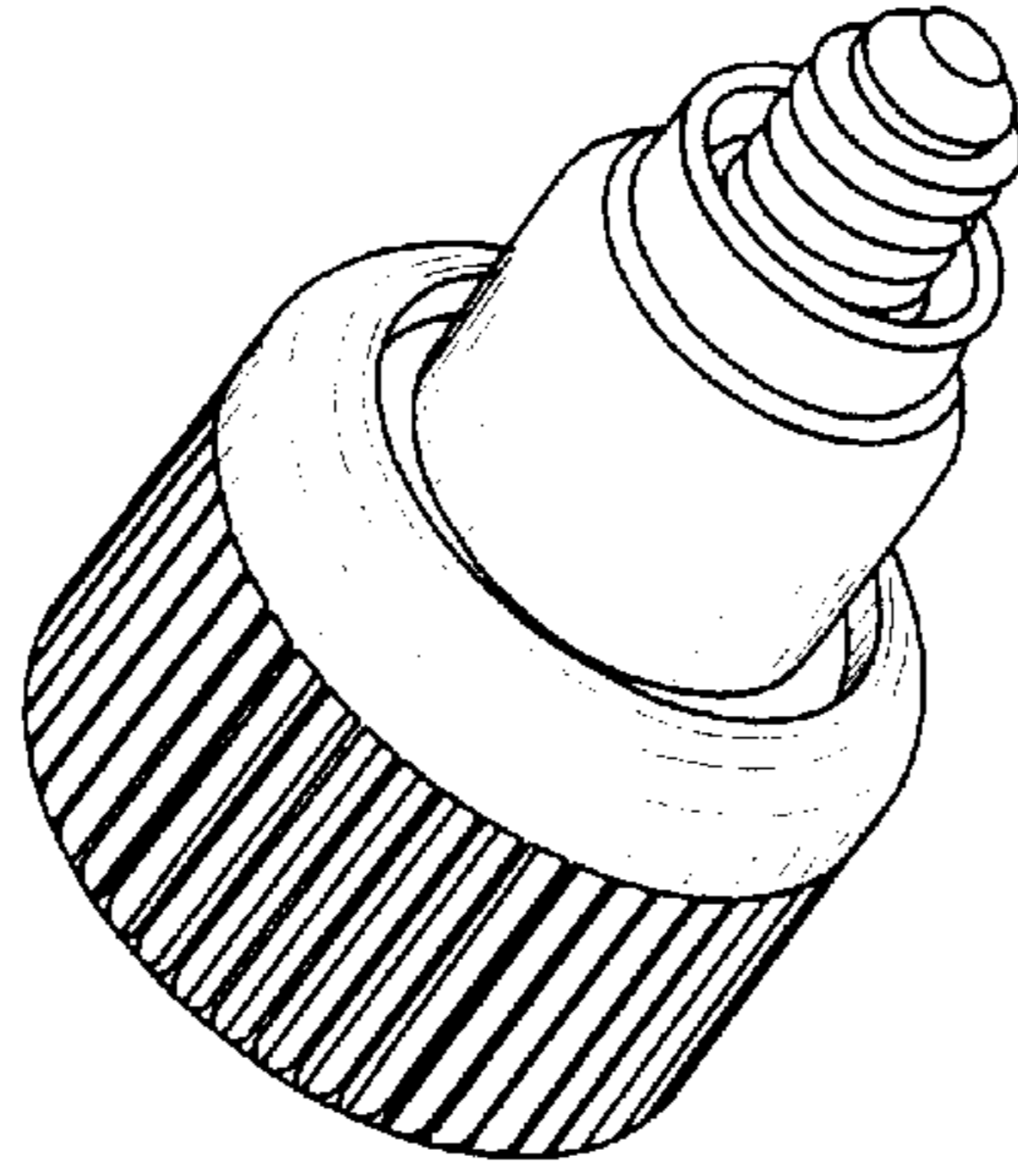


FIG. 10

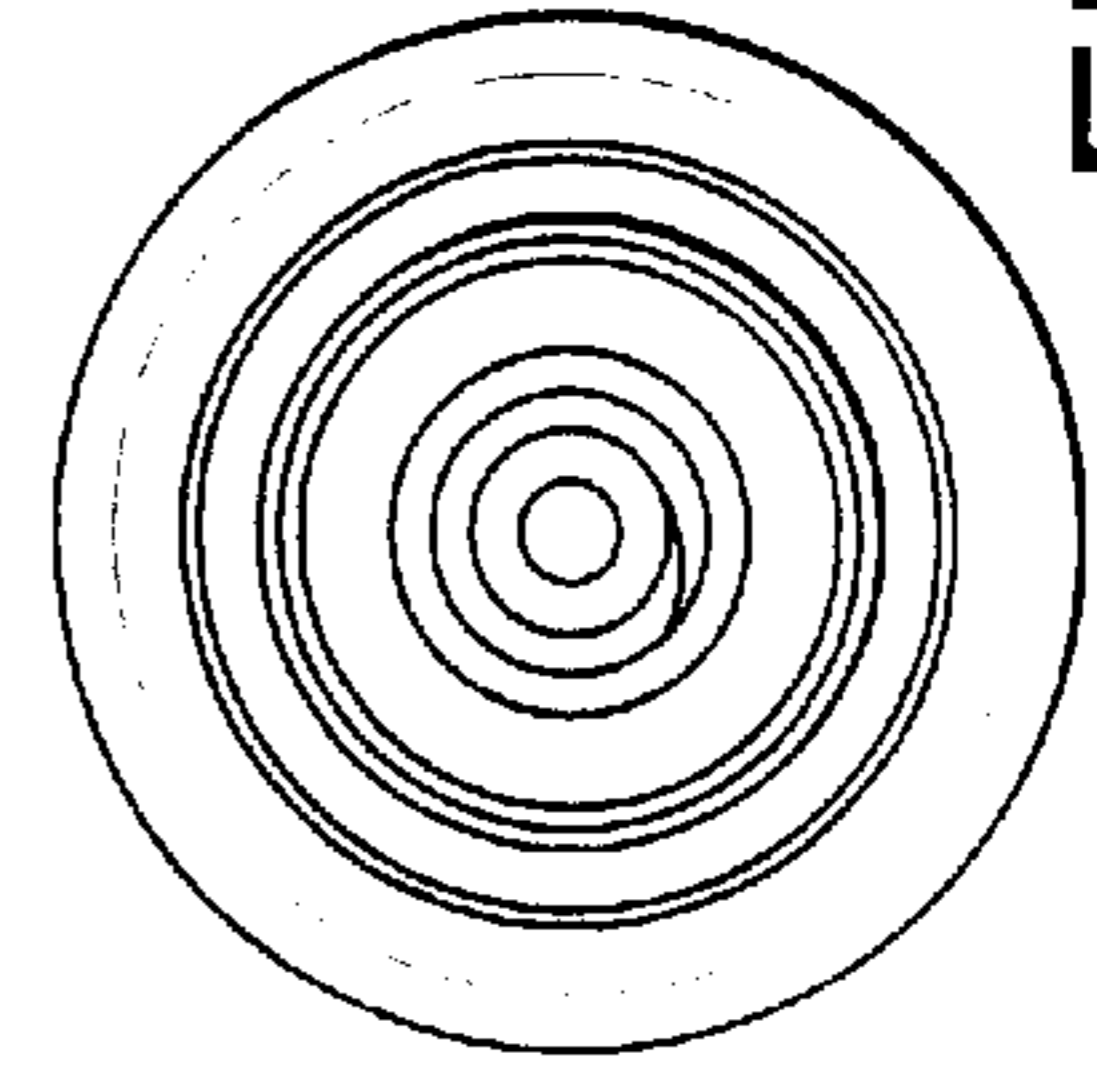


FIG. 11

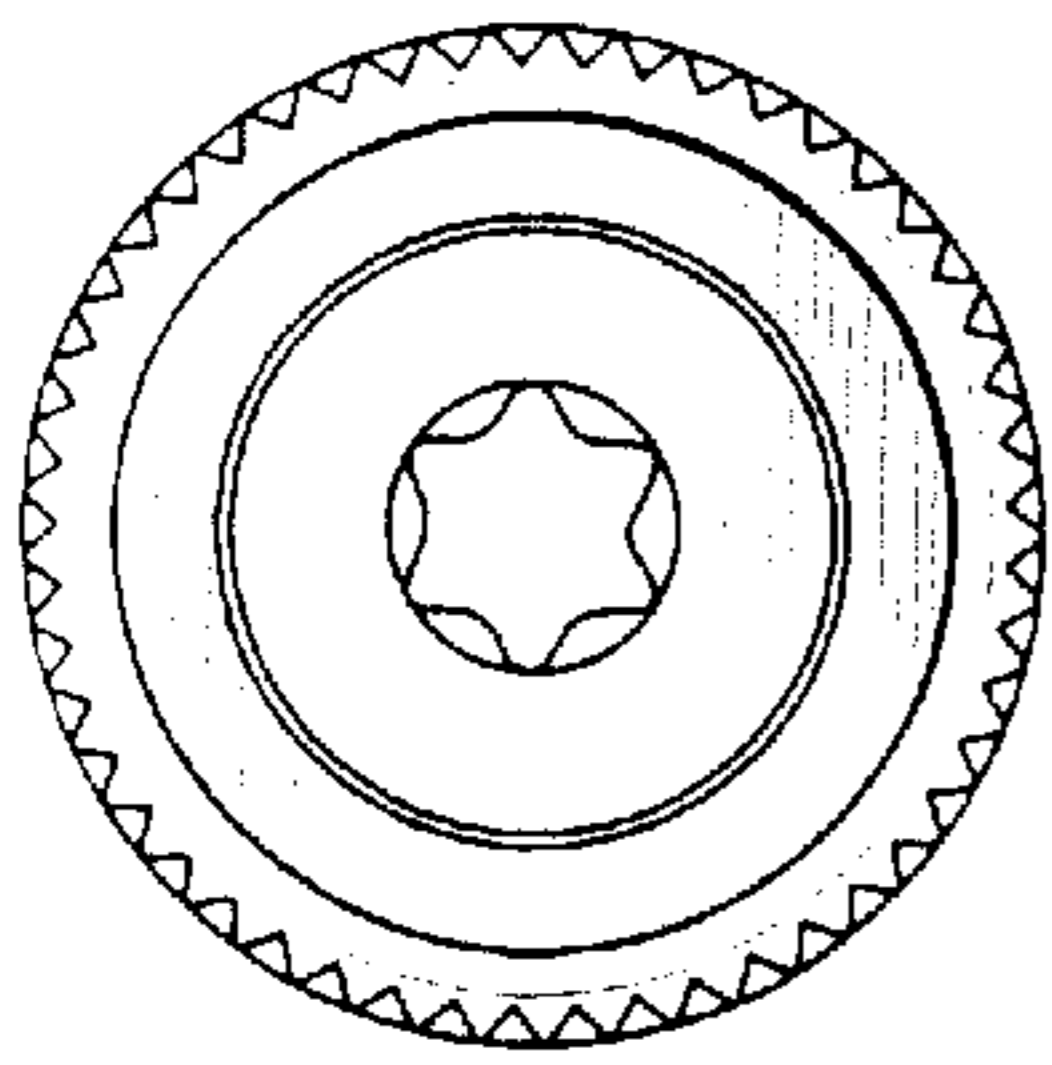


FIG. 20

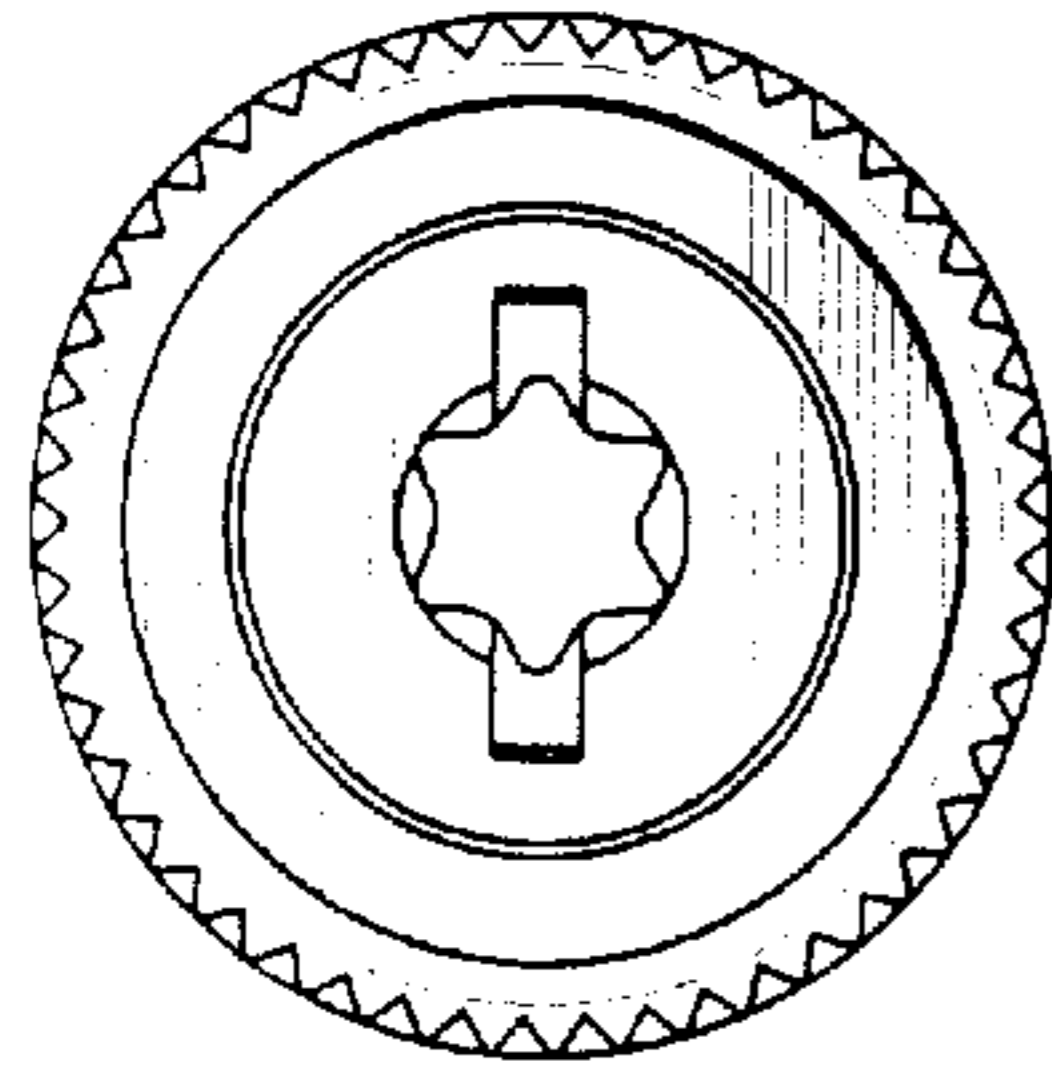


FIG. 21

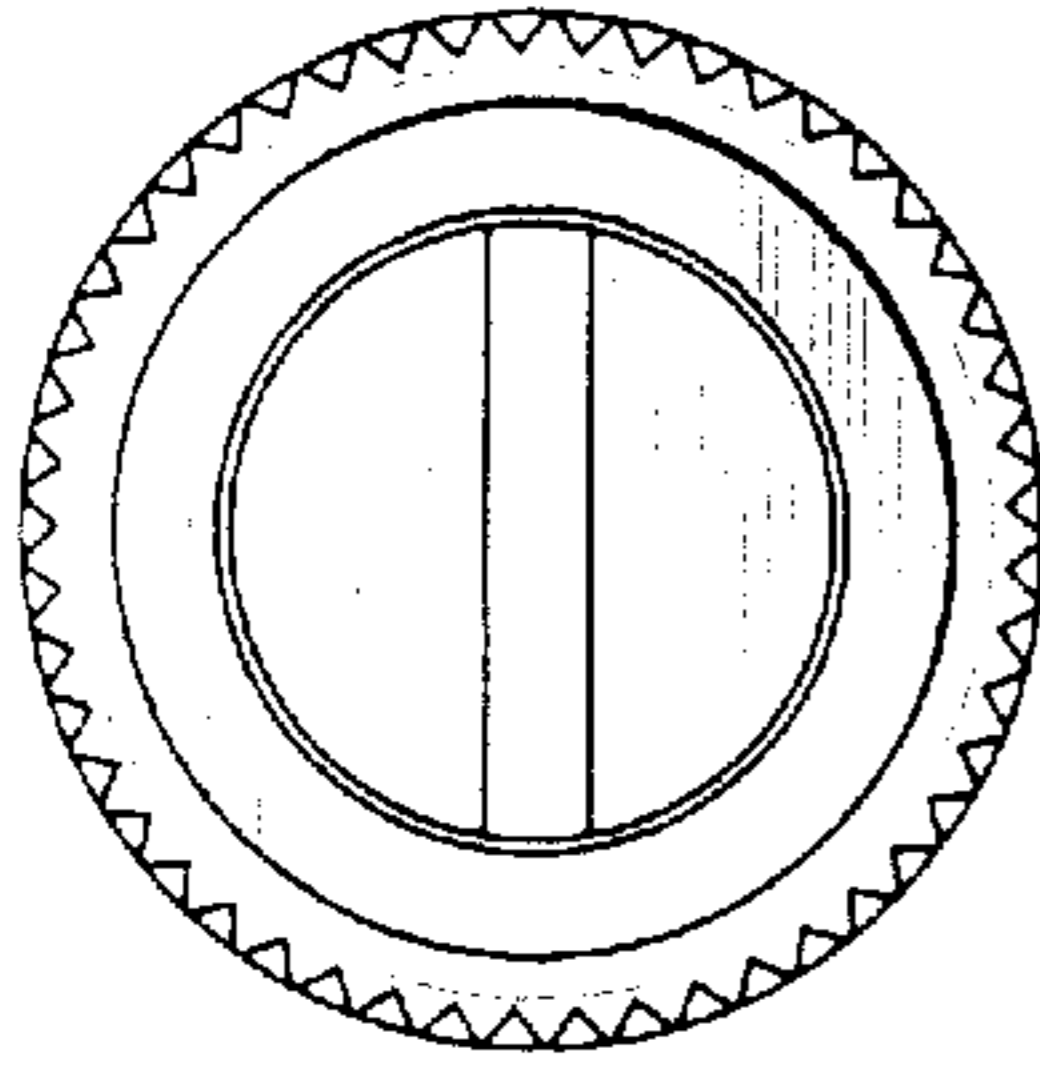


FIG. 22

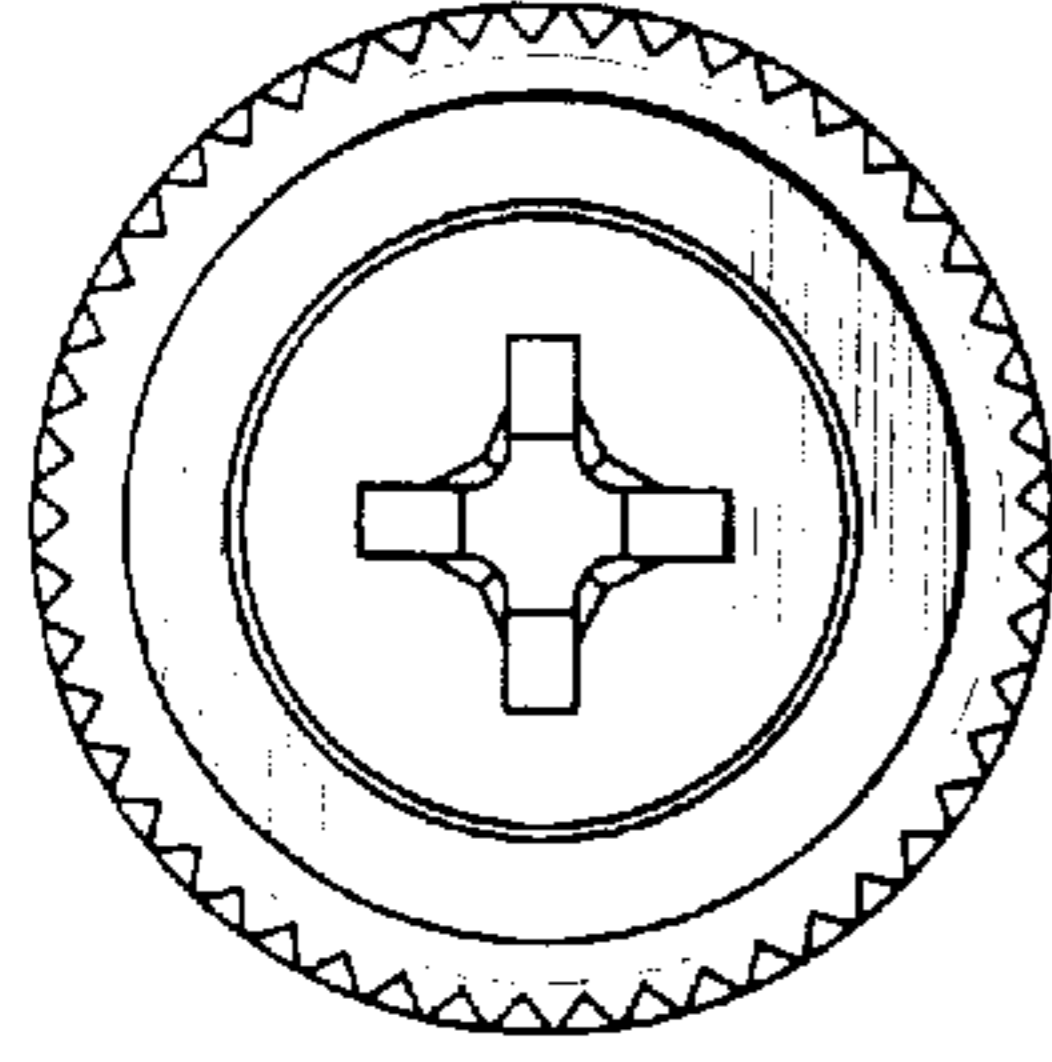


FIG. 23

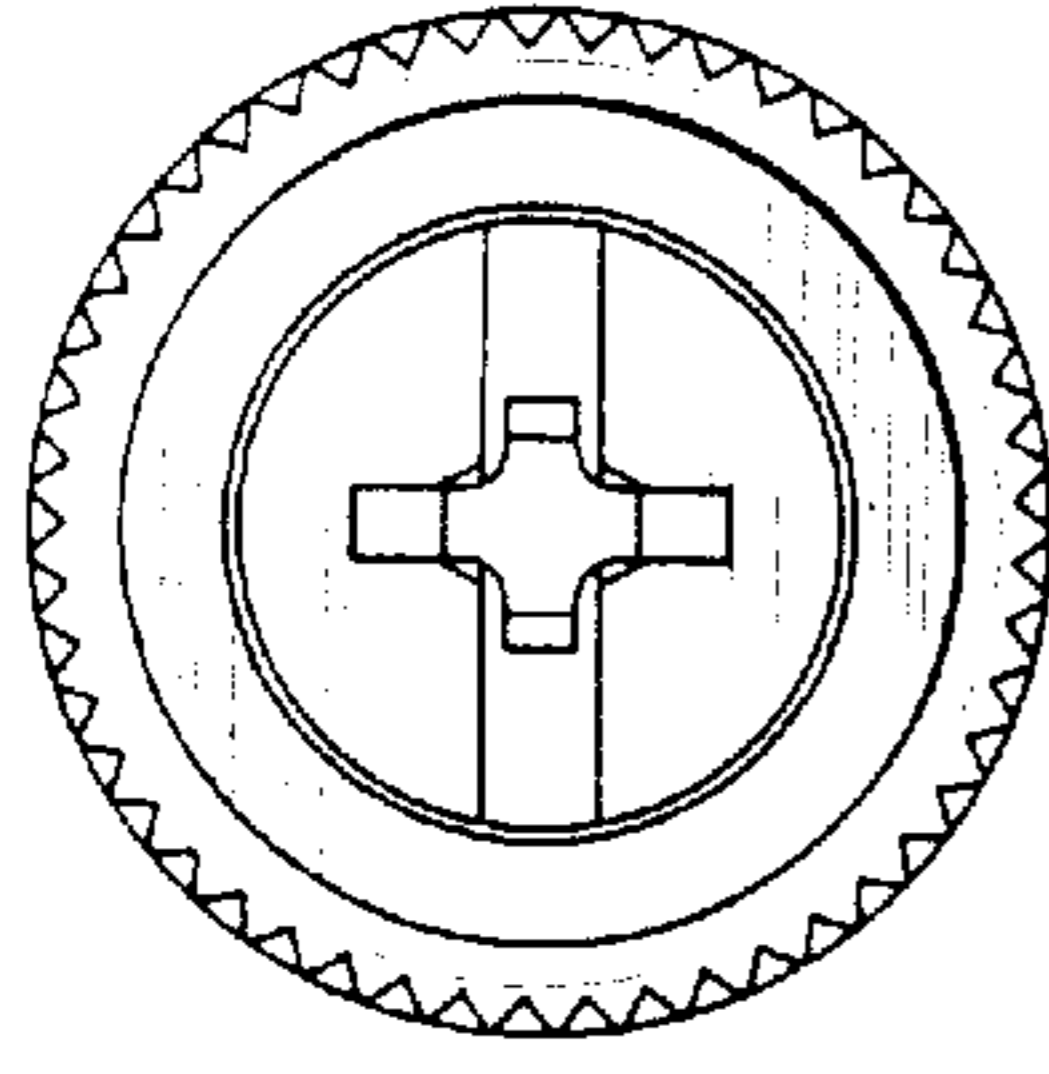


FIG. 24

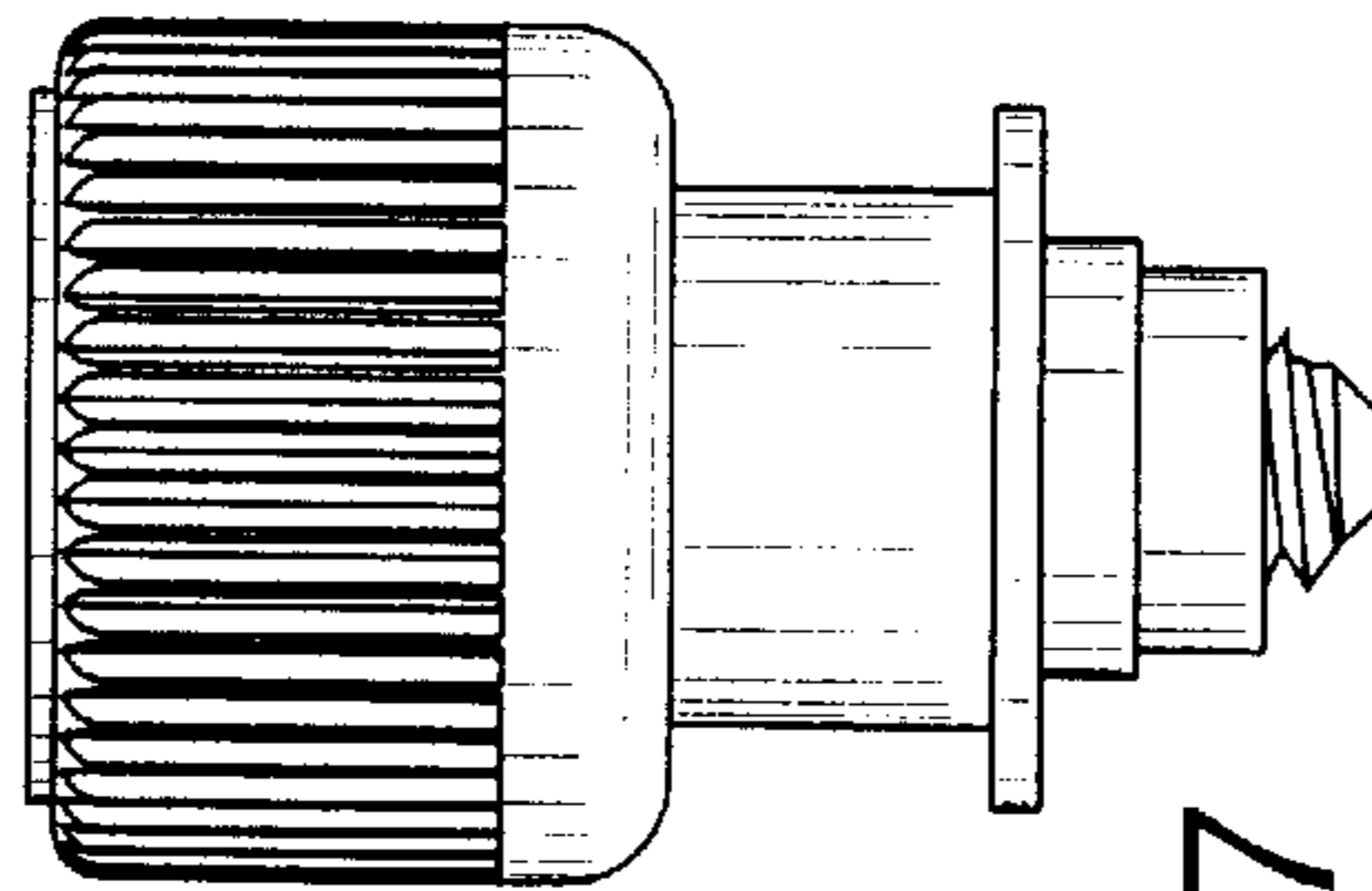


FIG. 17

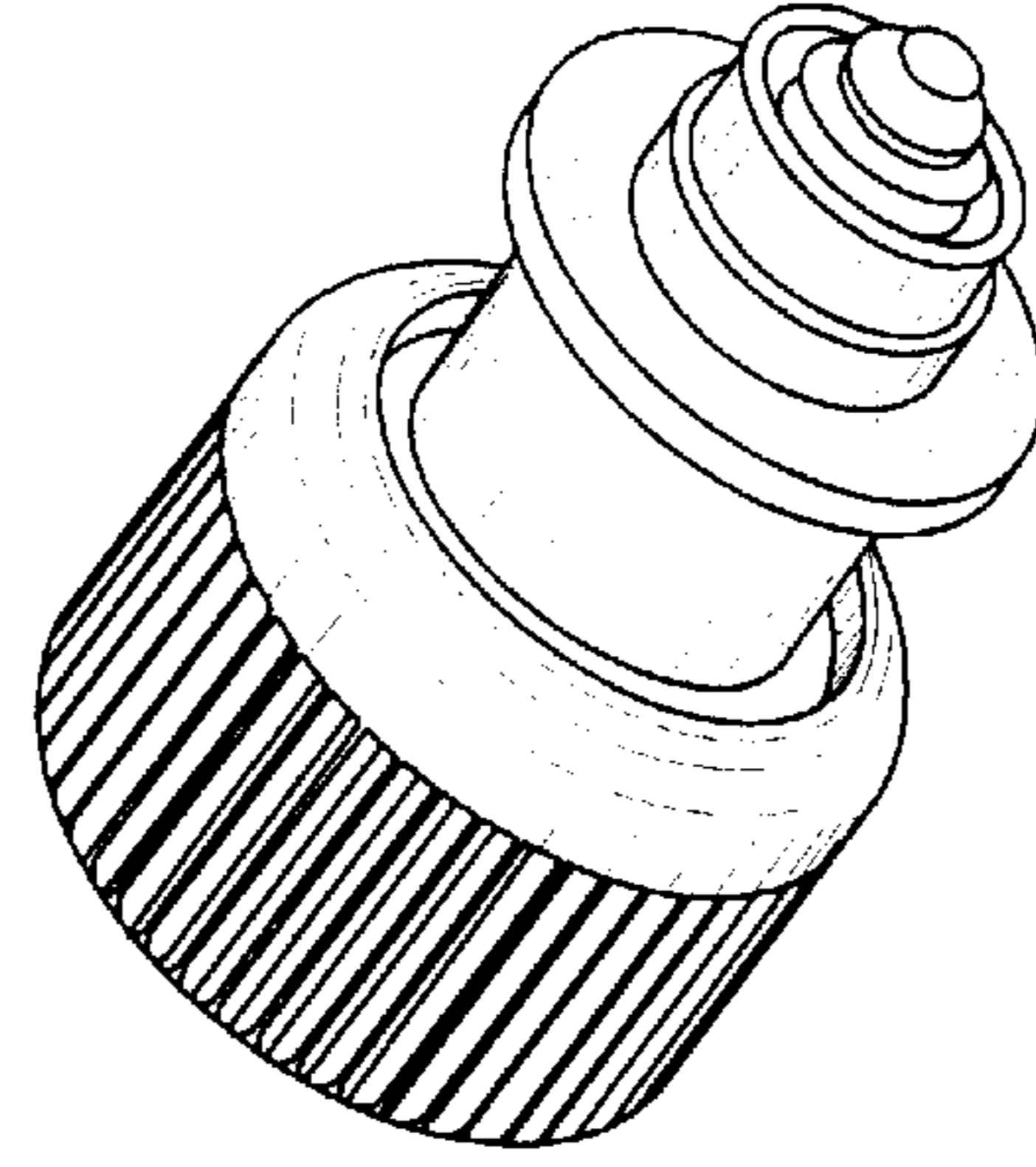


FIG. 18

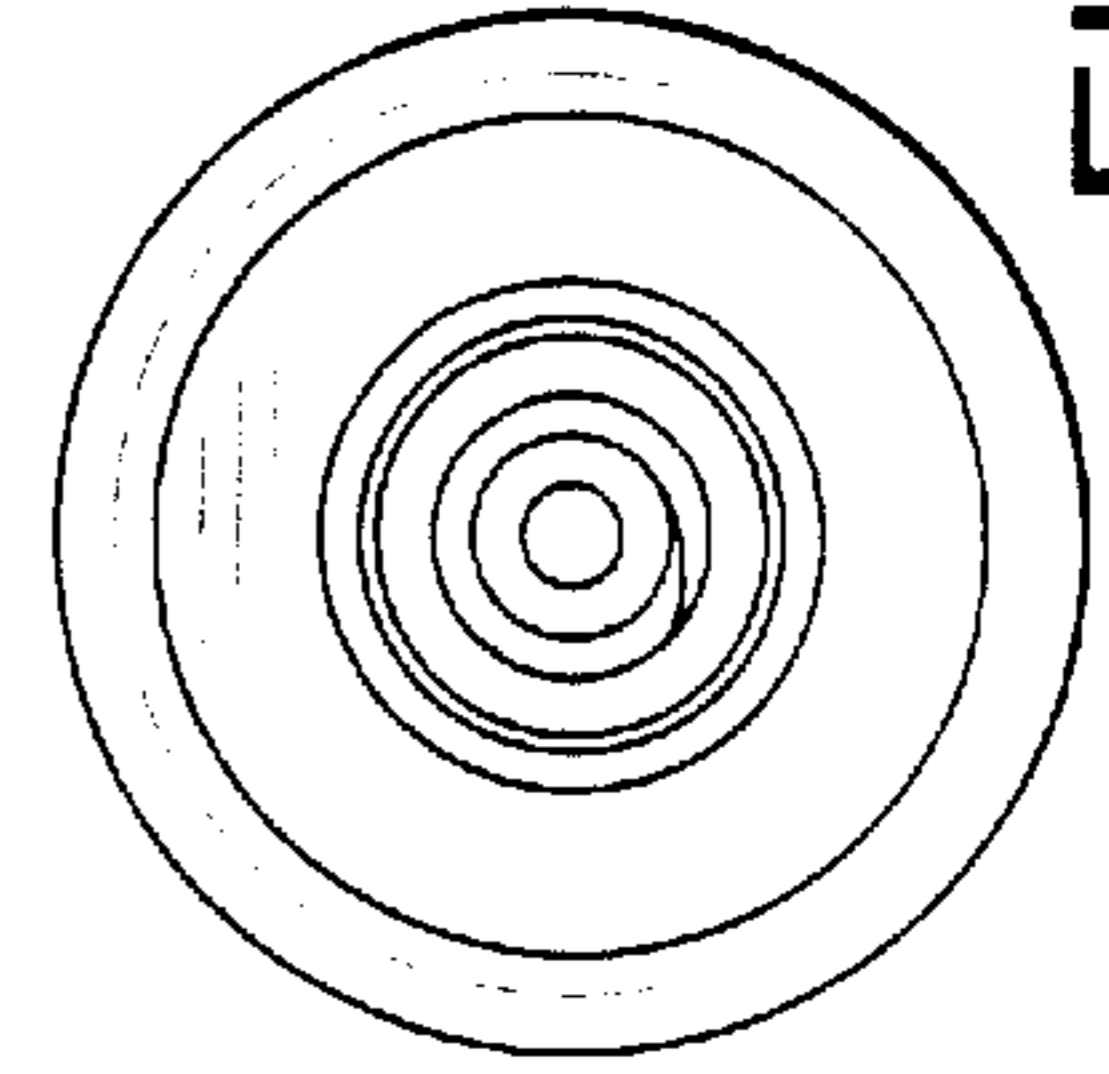


FIG. 19

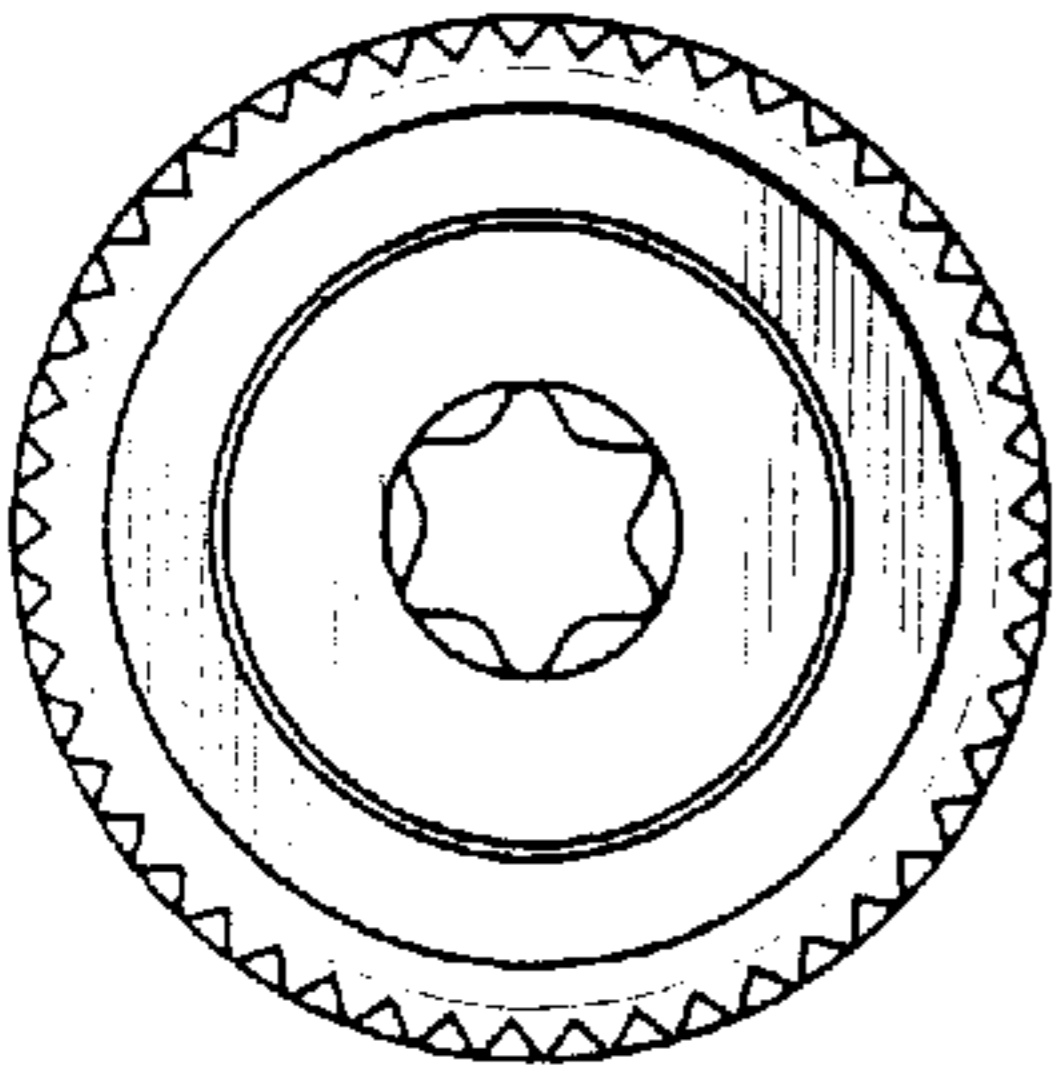


FIG. 28

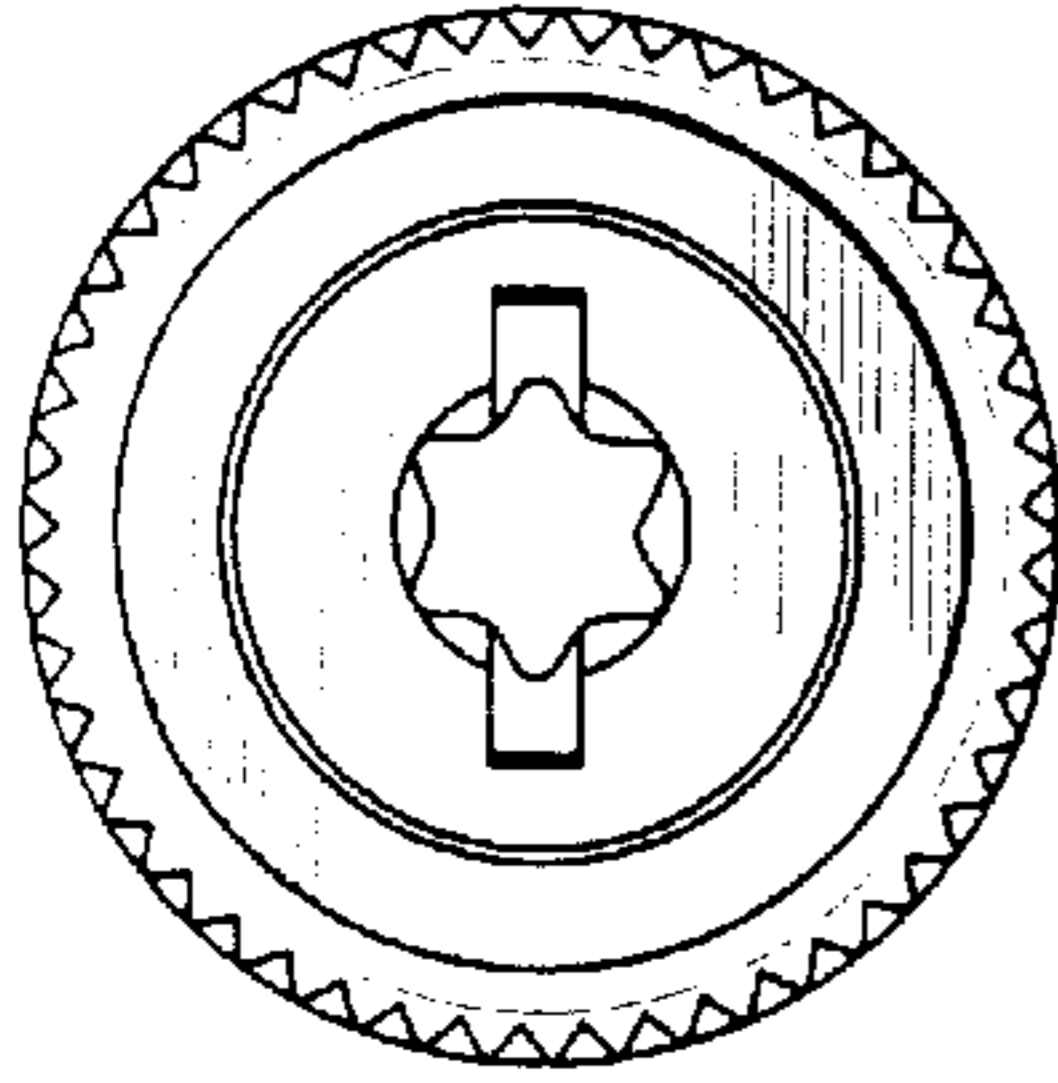


FIG. 29

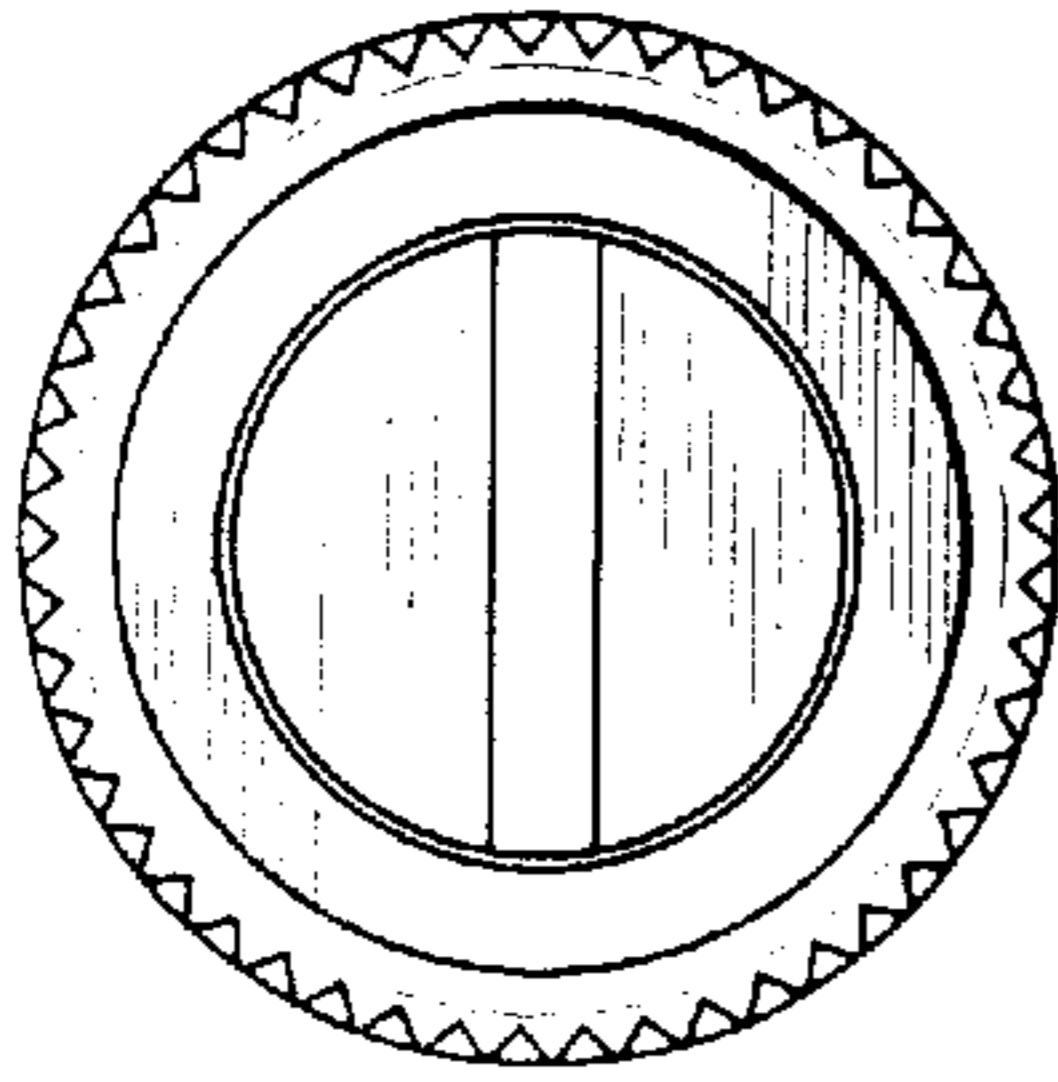


FIG. 30

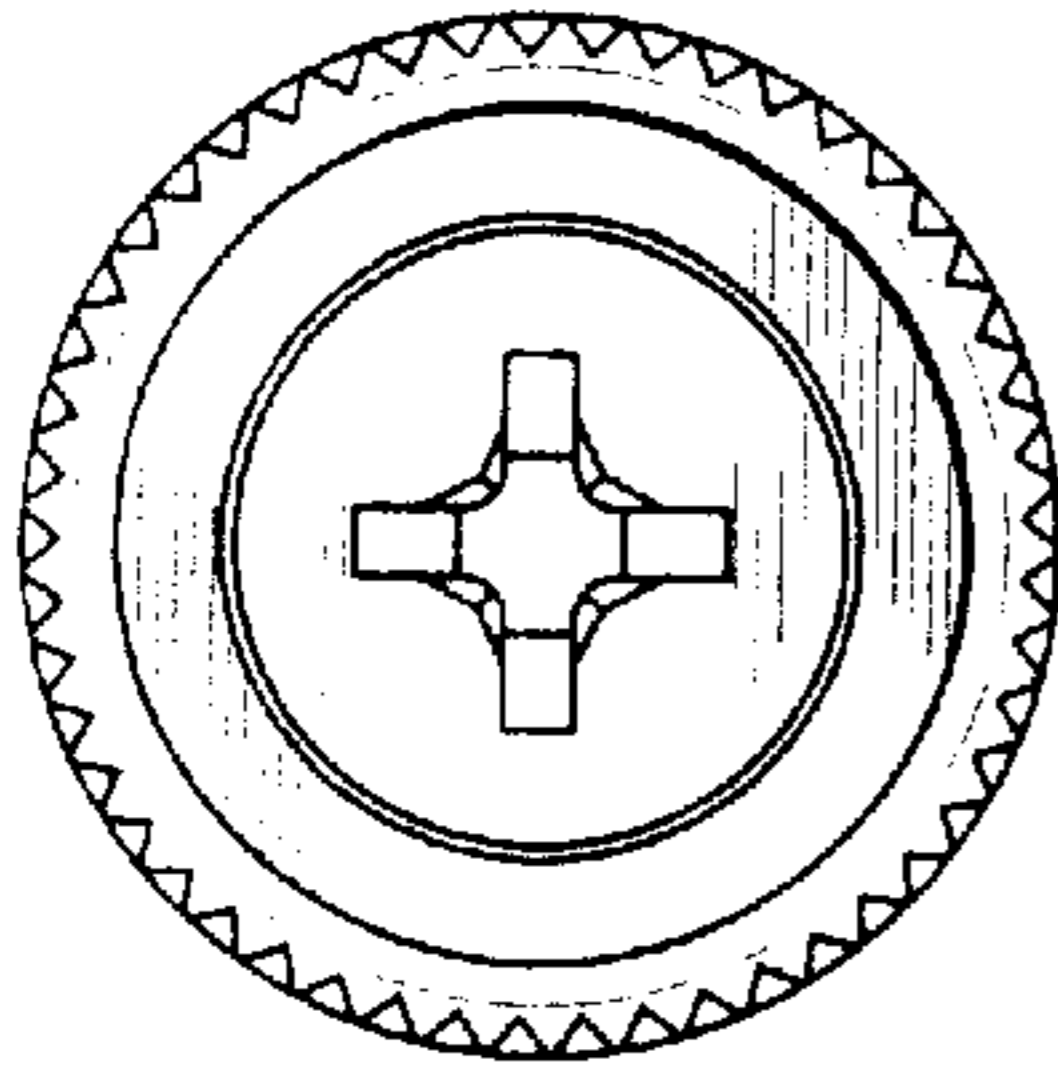


FIG. 31

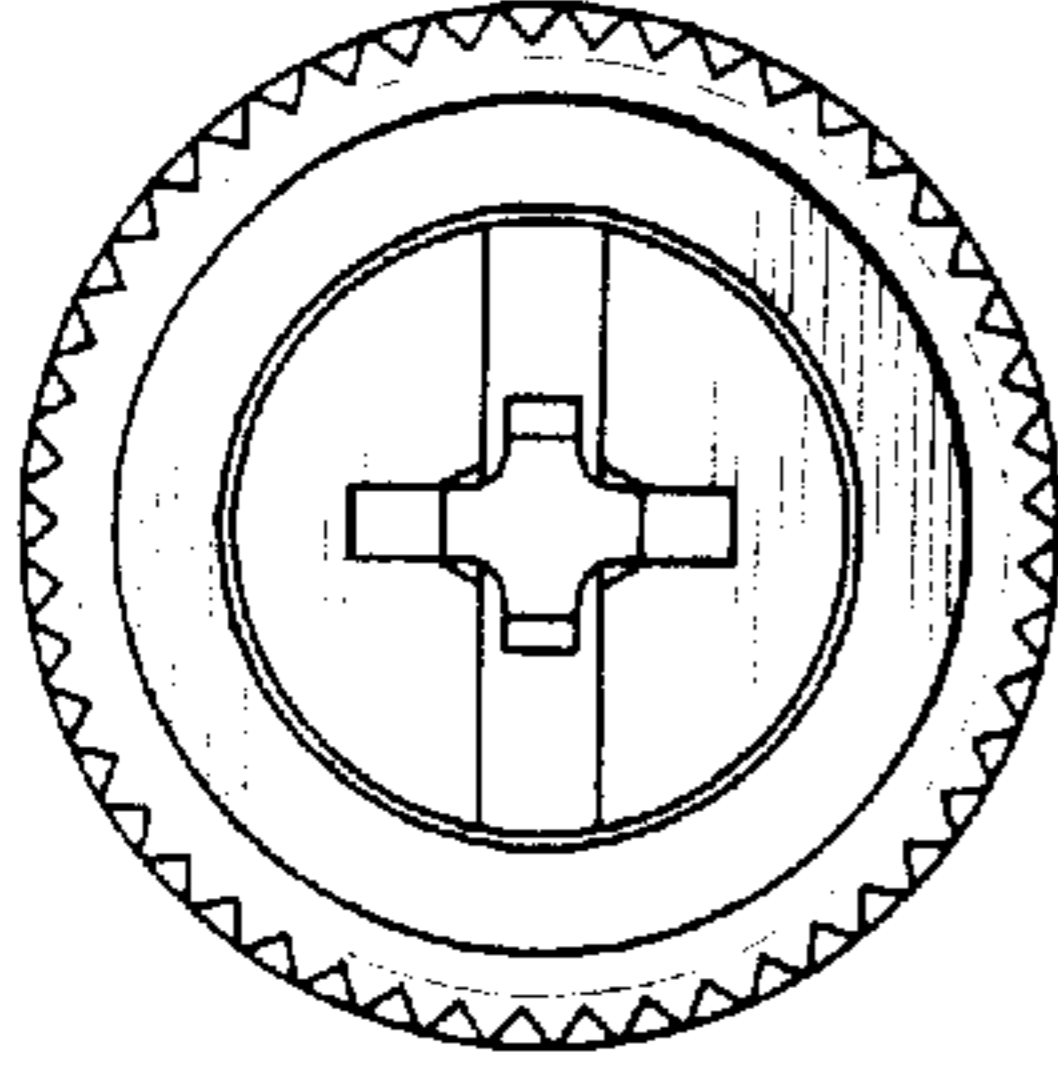


FIG. 32

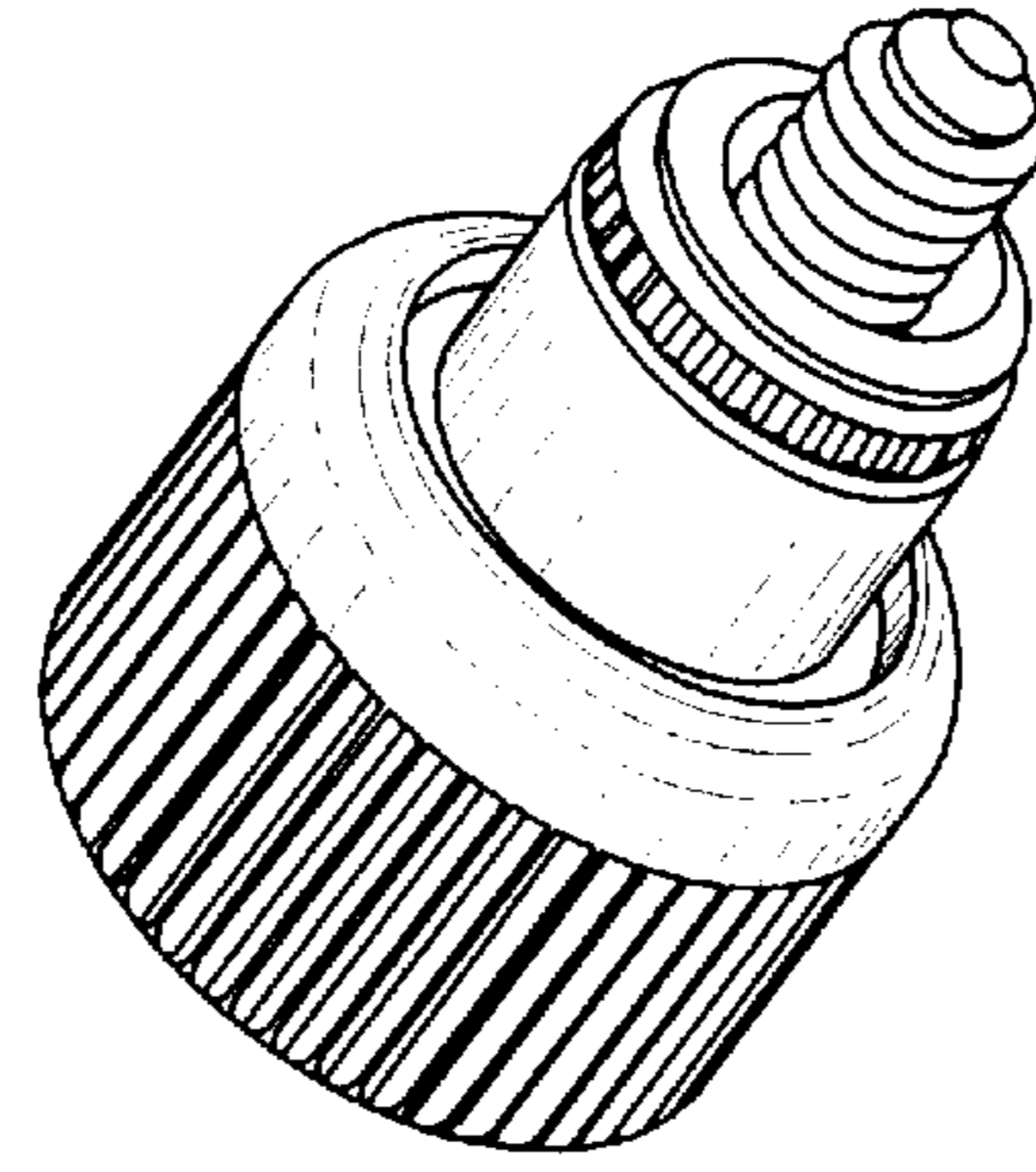


FIG. 26

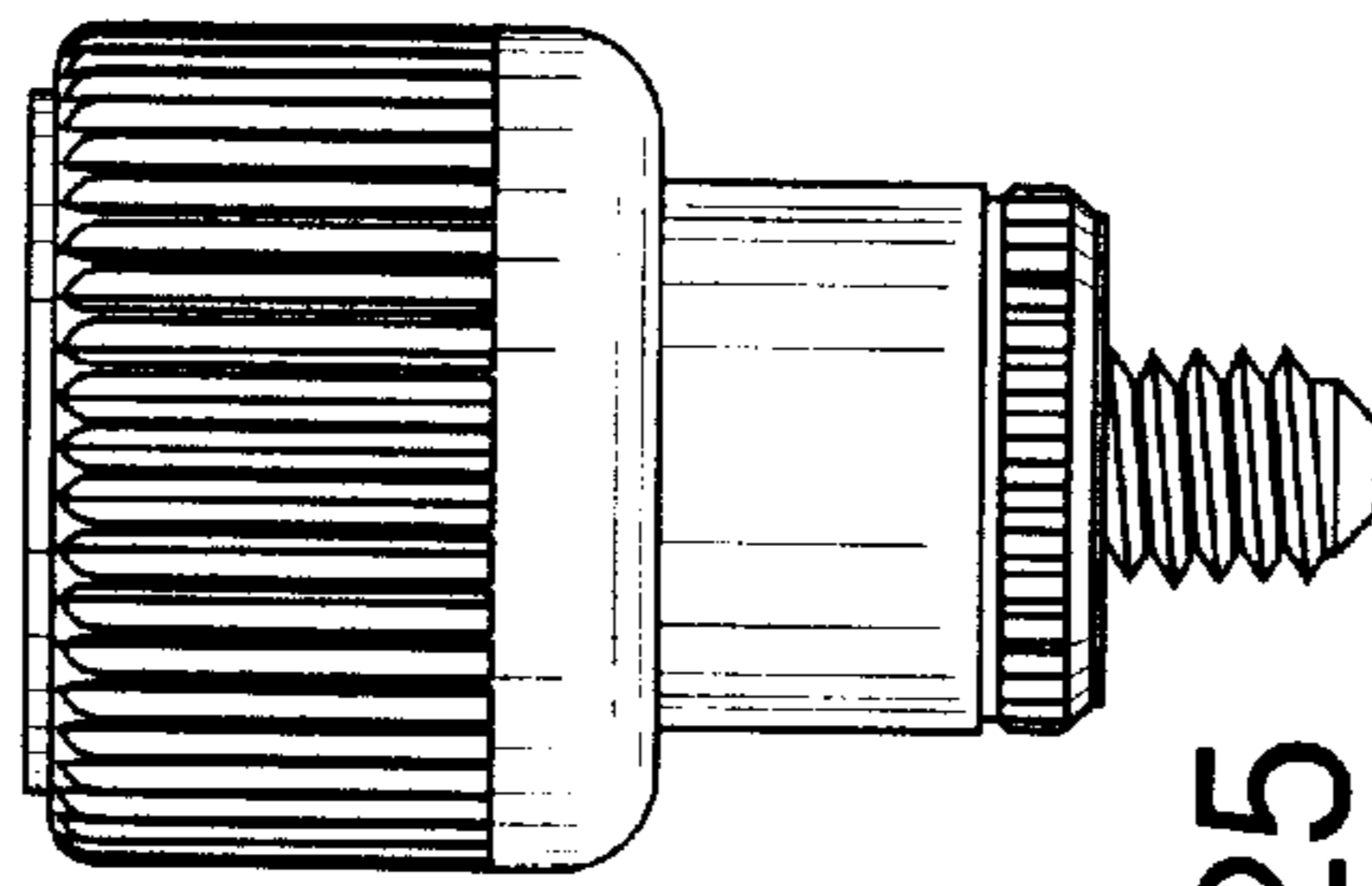


FIG. 25

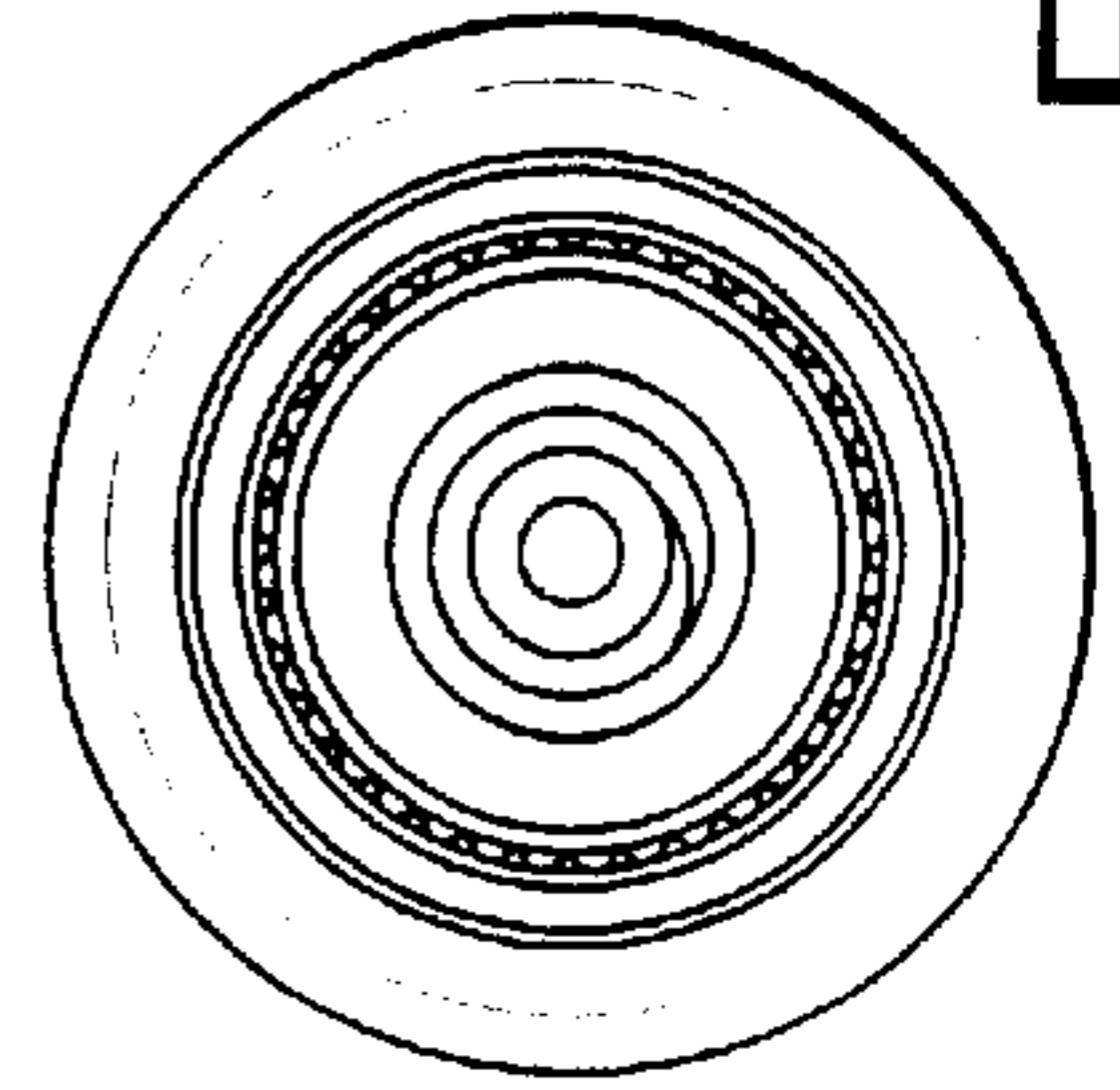


FIG. 27

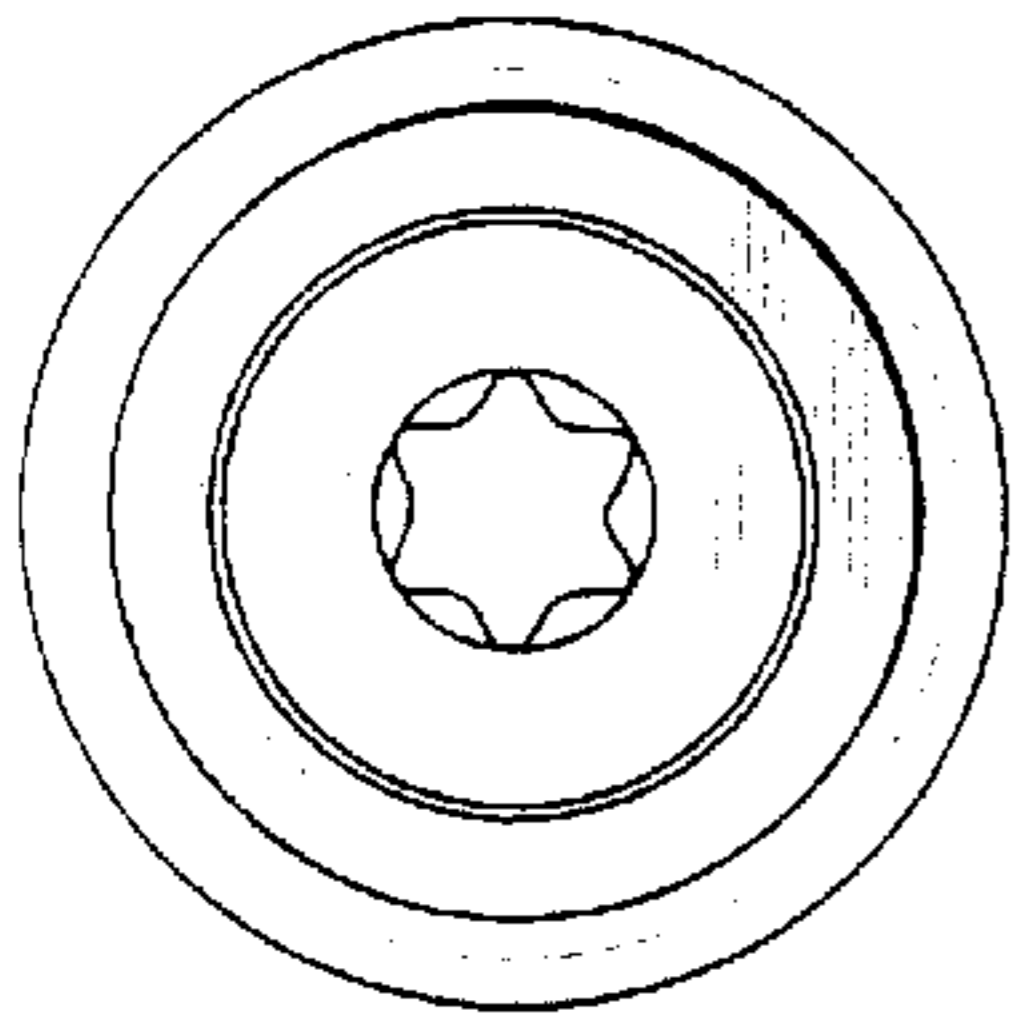


FIG. 36

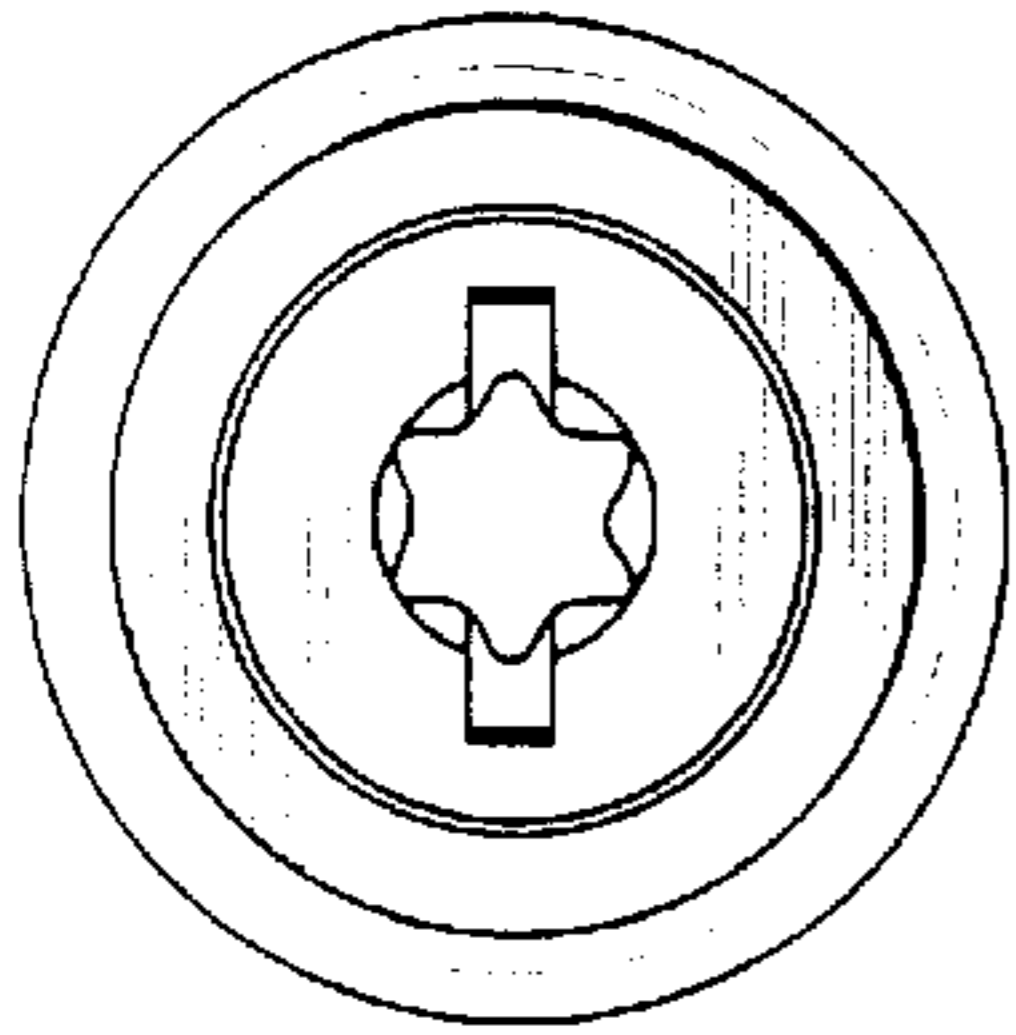


FIG. 37

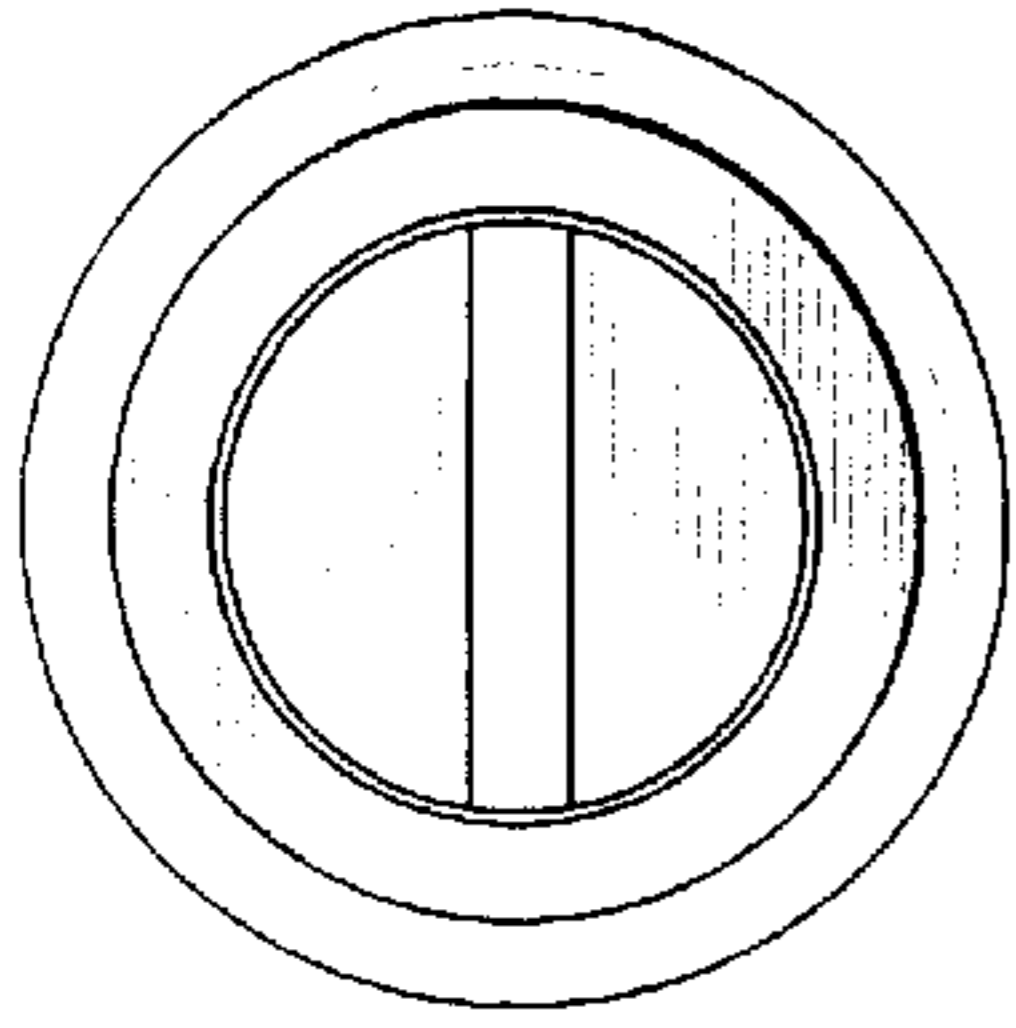


FIG. 38

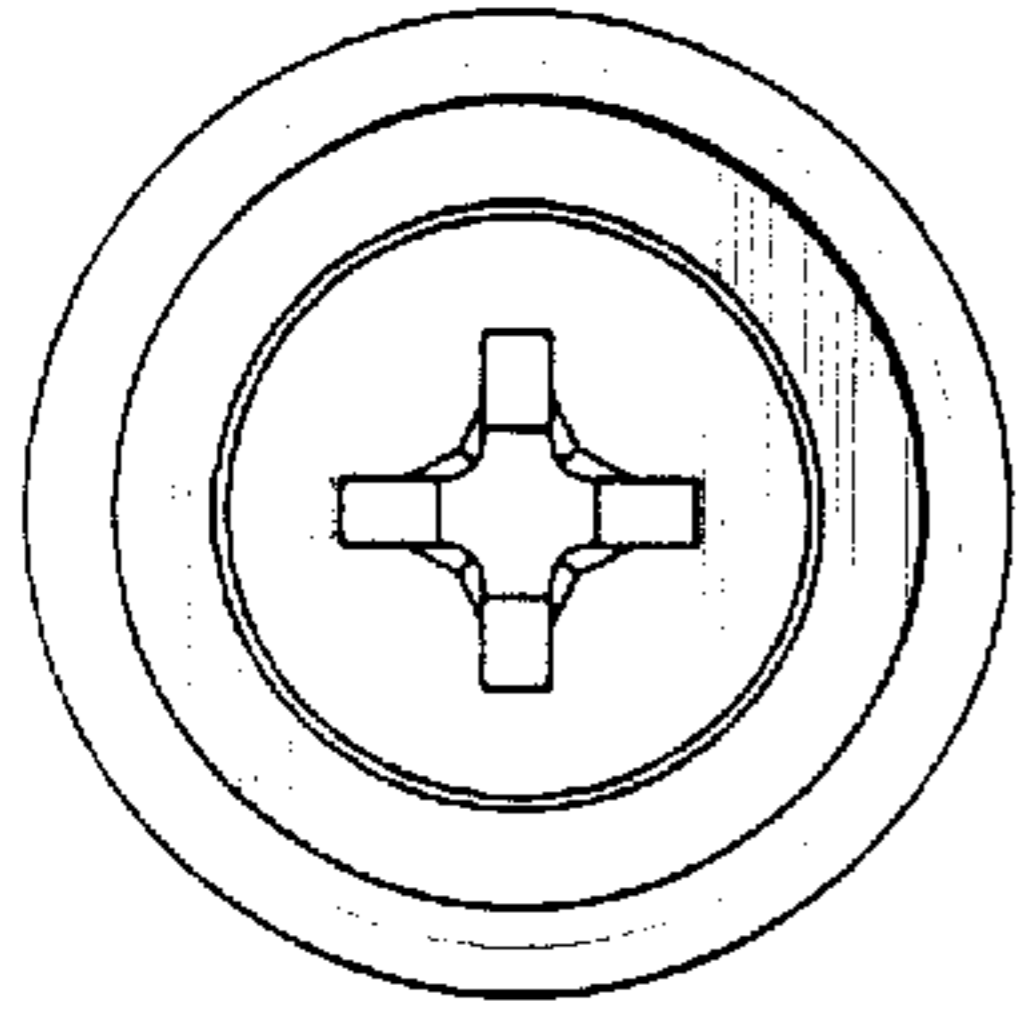


FIG. 39

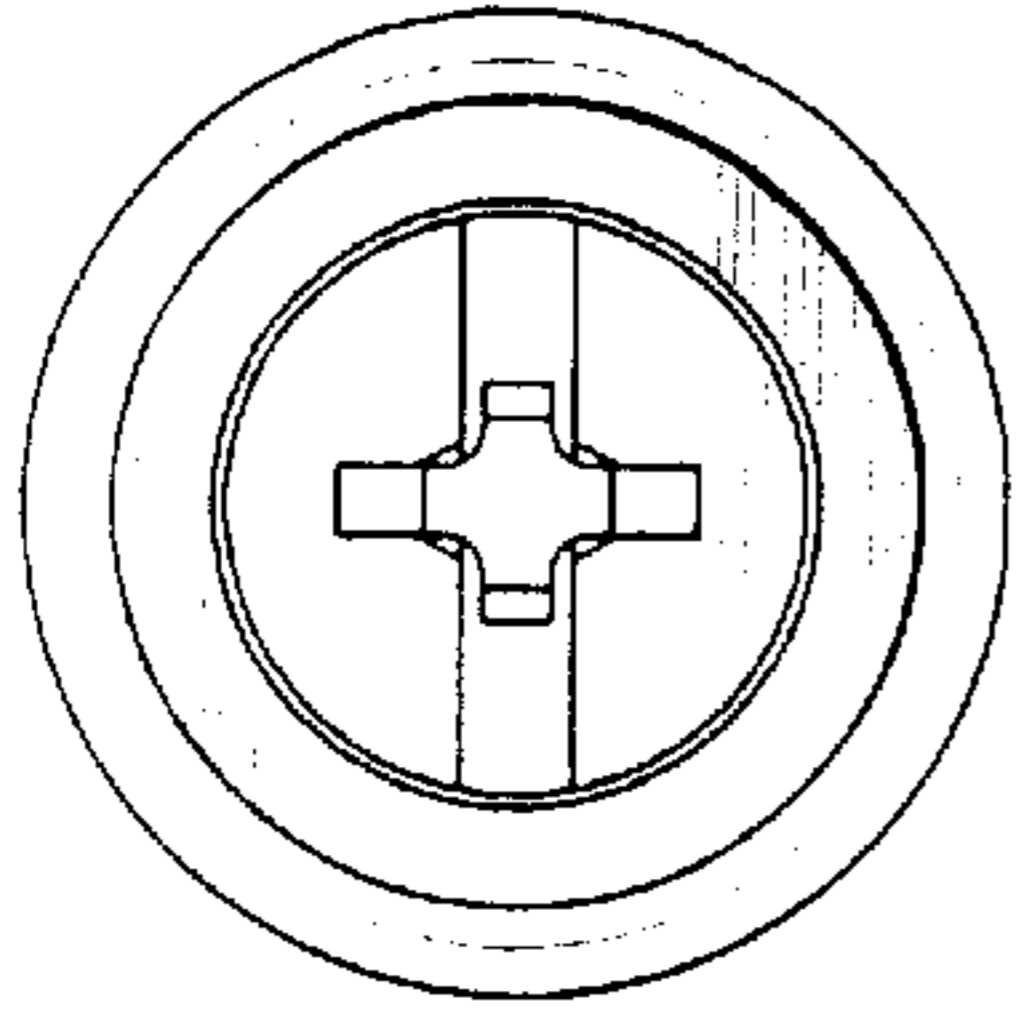


FIG. 40

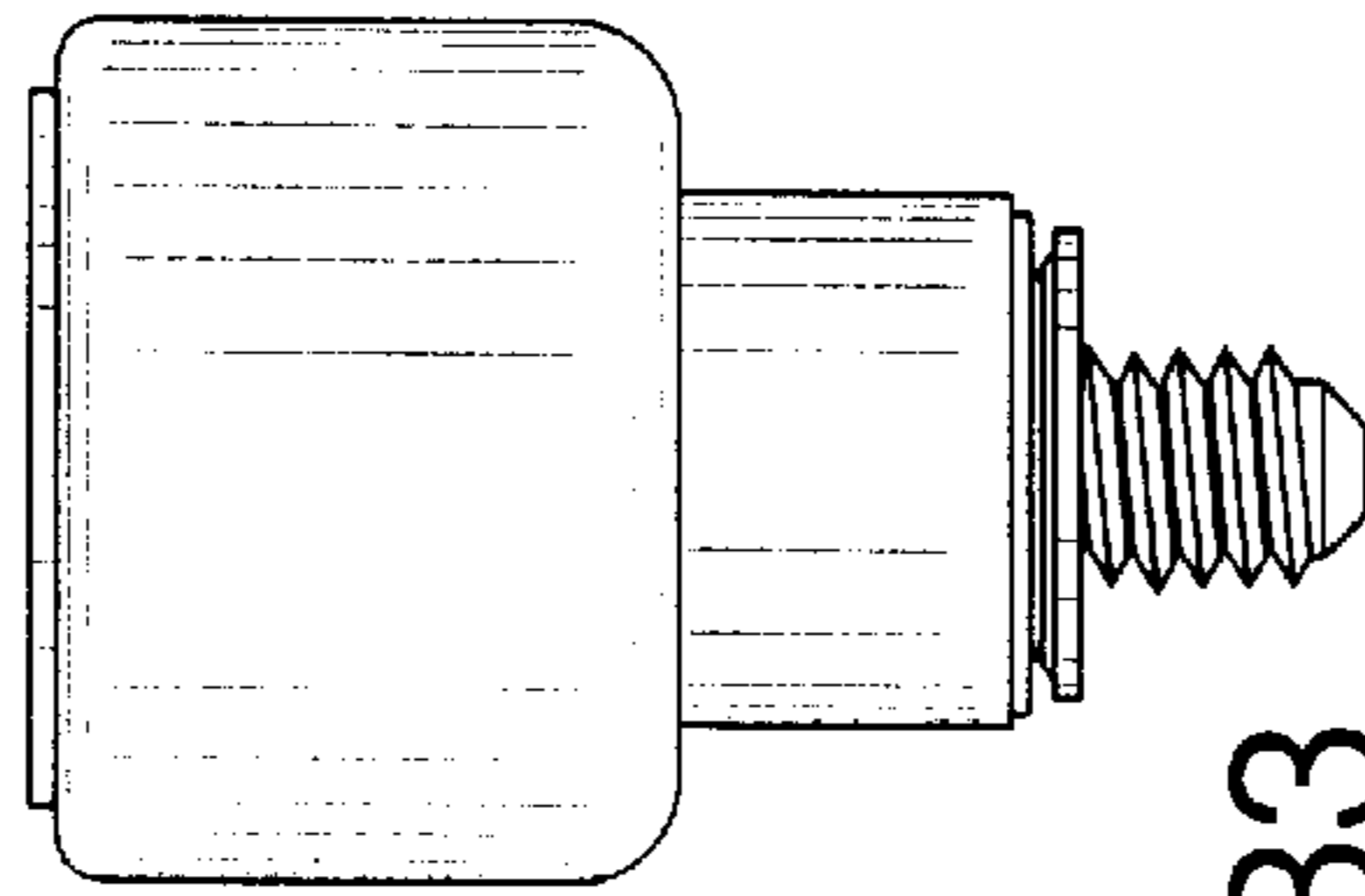


FIG. 33

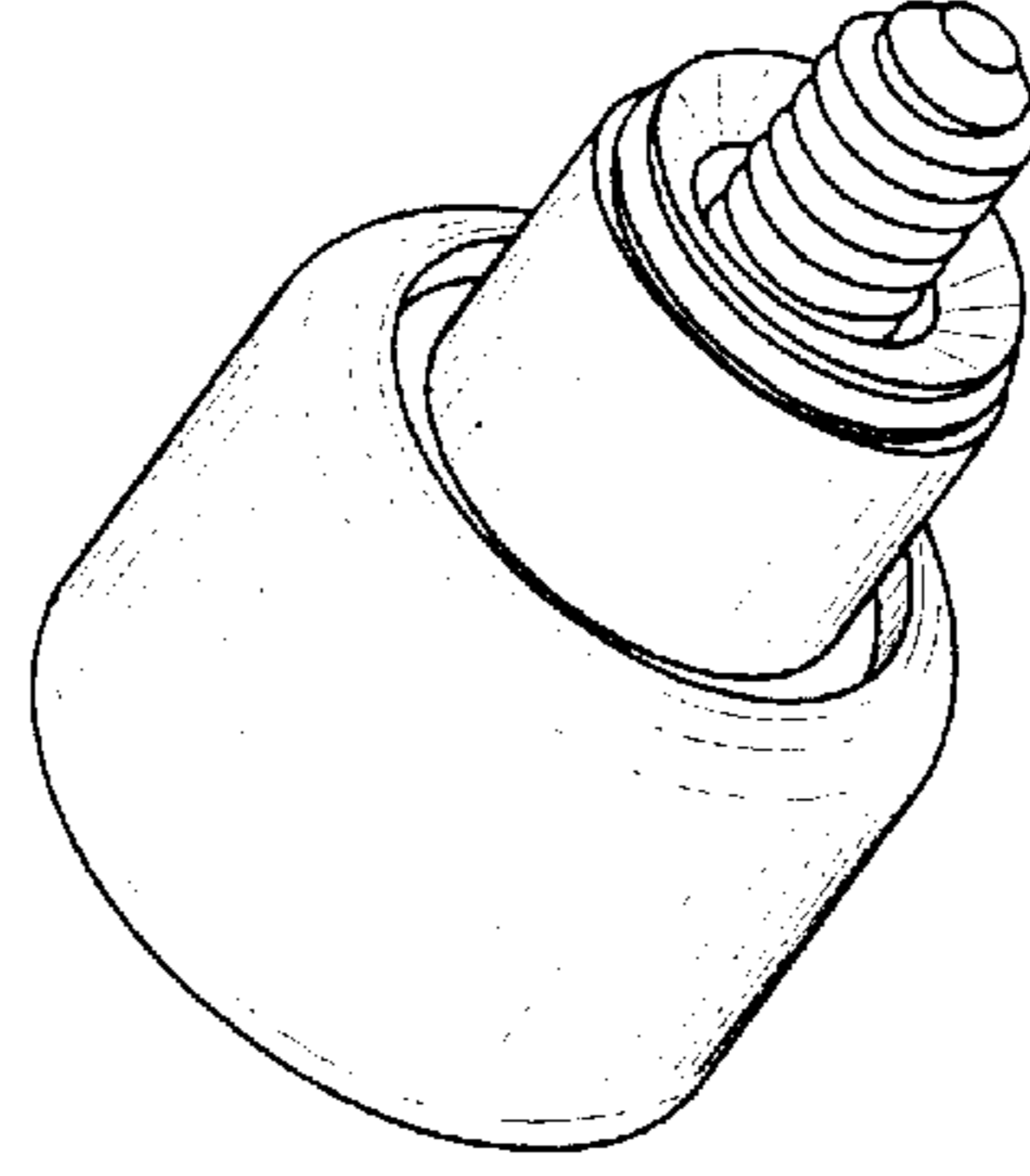


FIG. 34

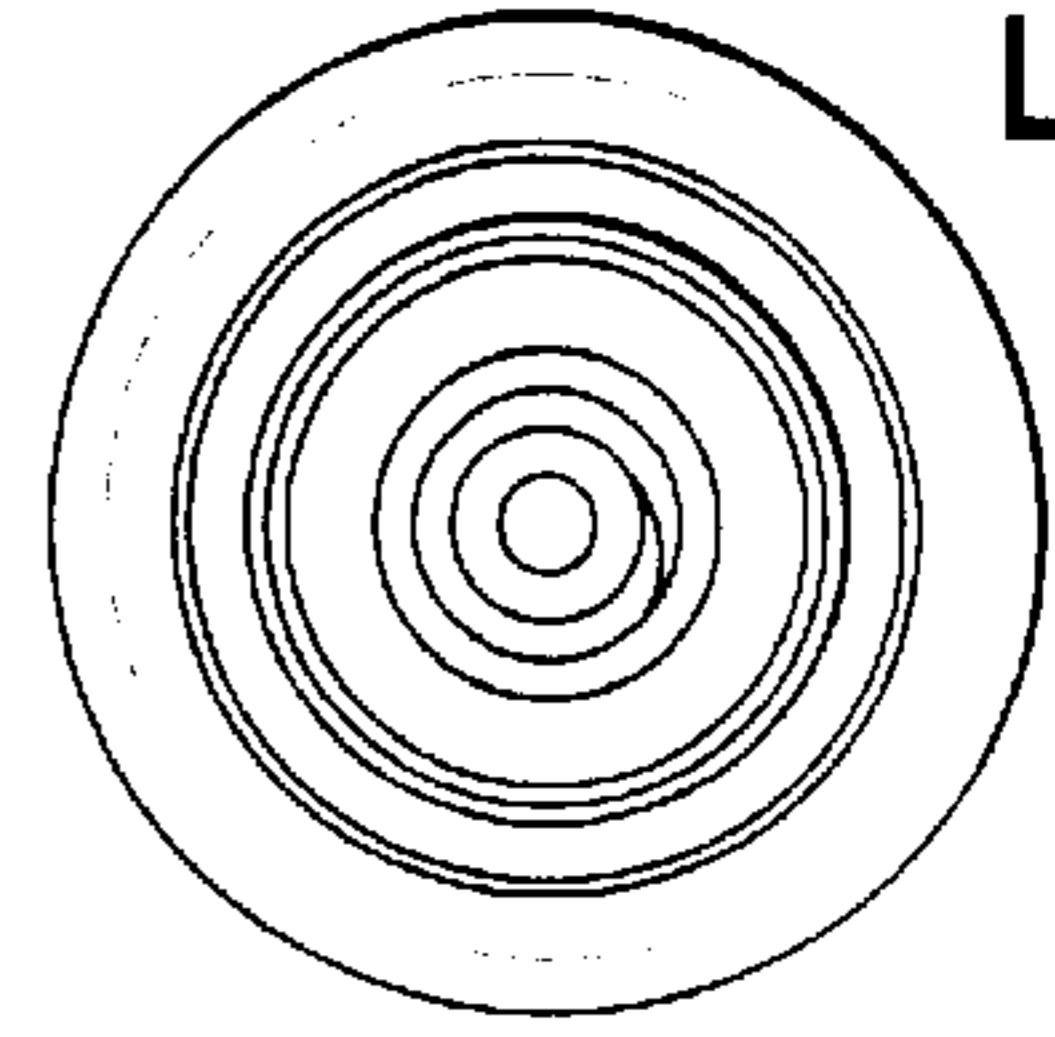


FIG. 35

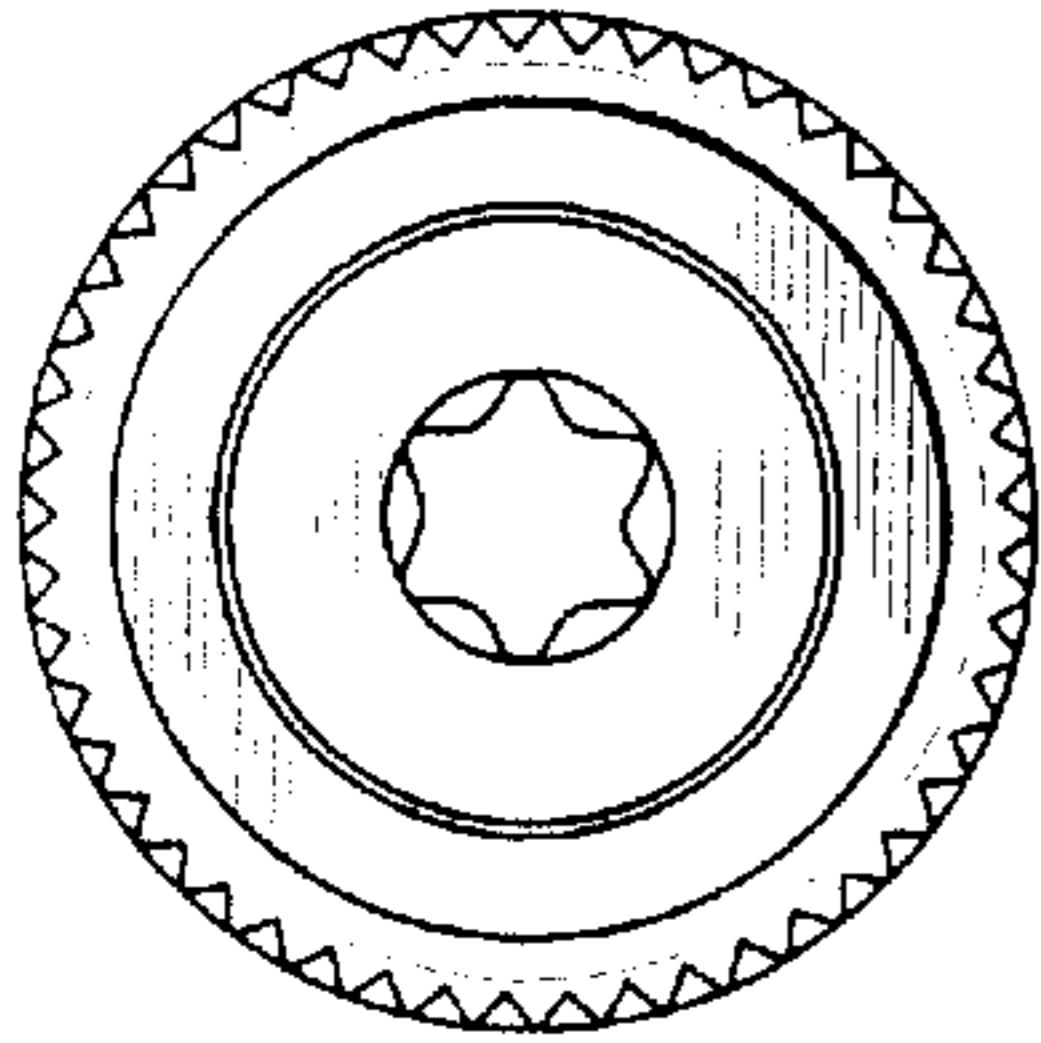


FIG. 44

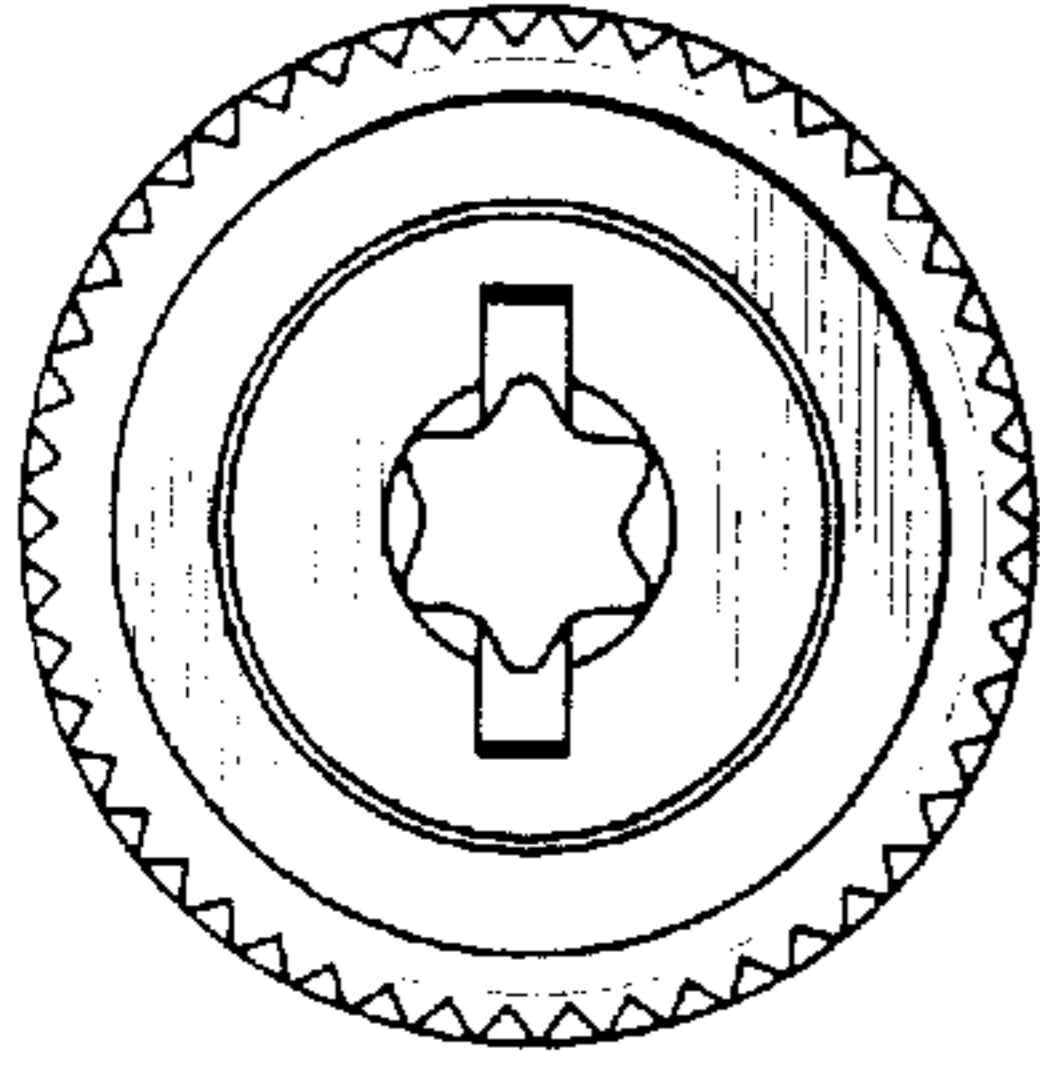


FIG. 45

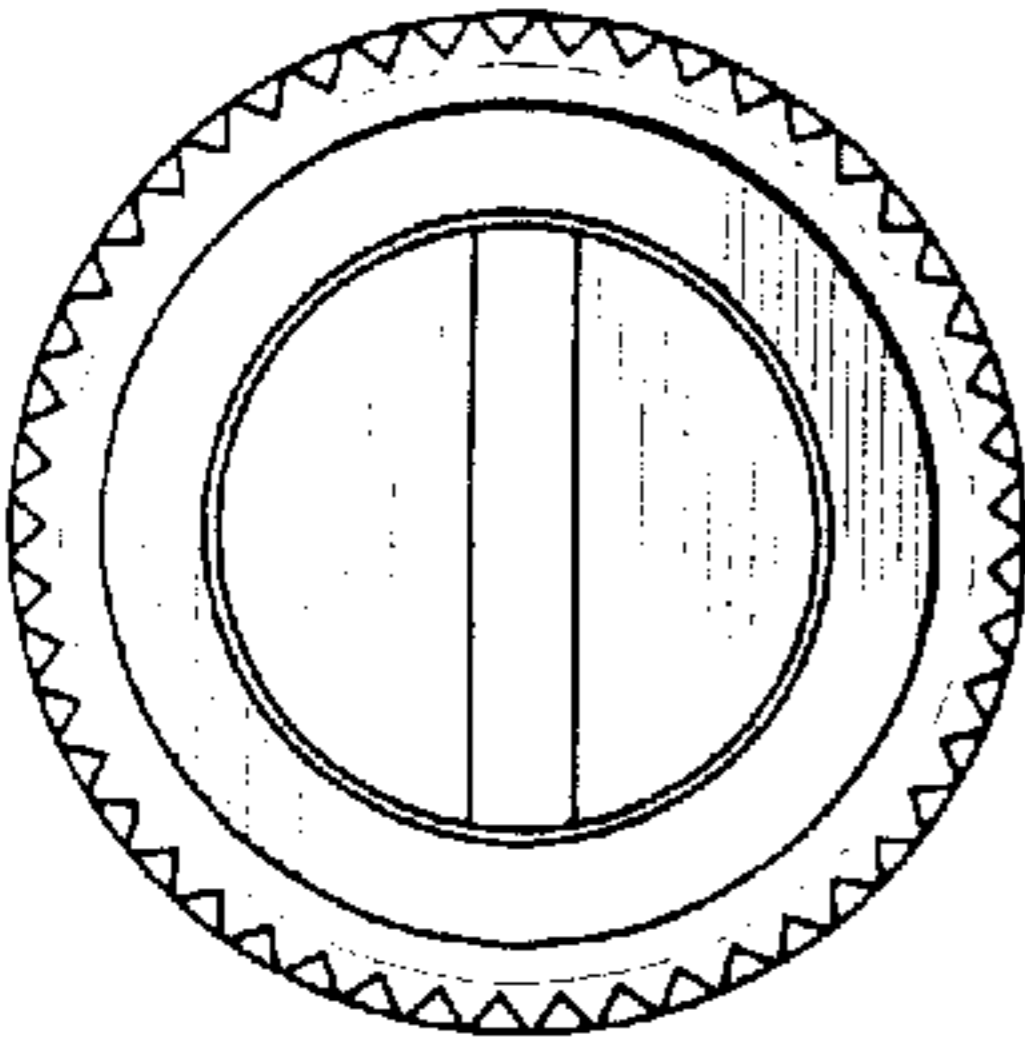


FIG. 46

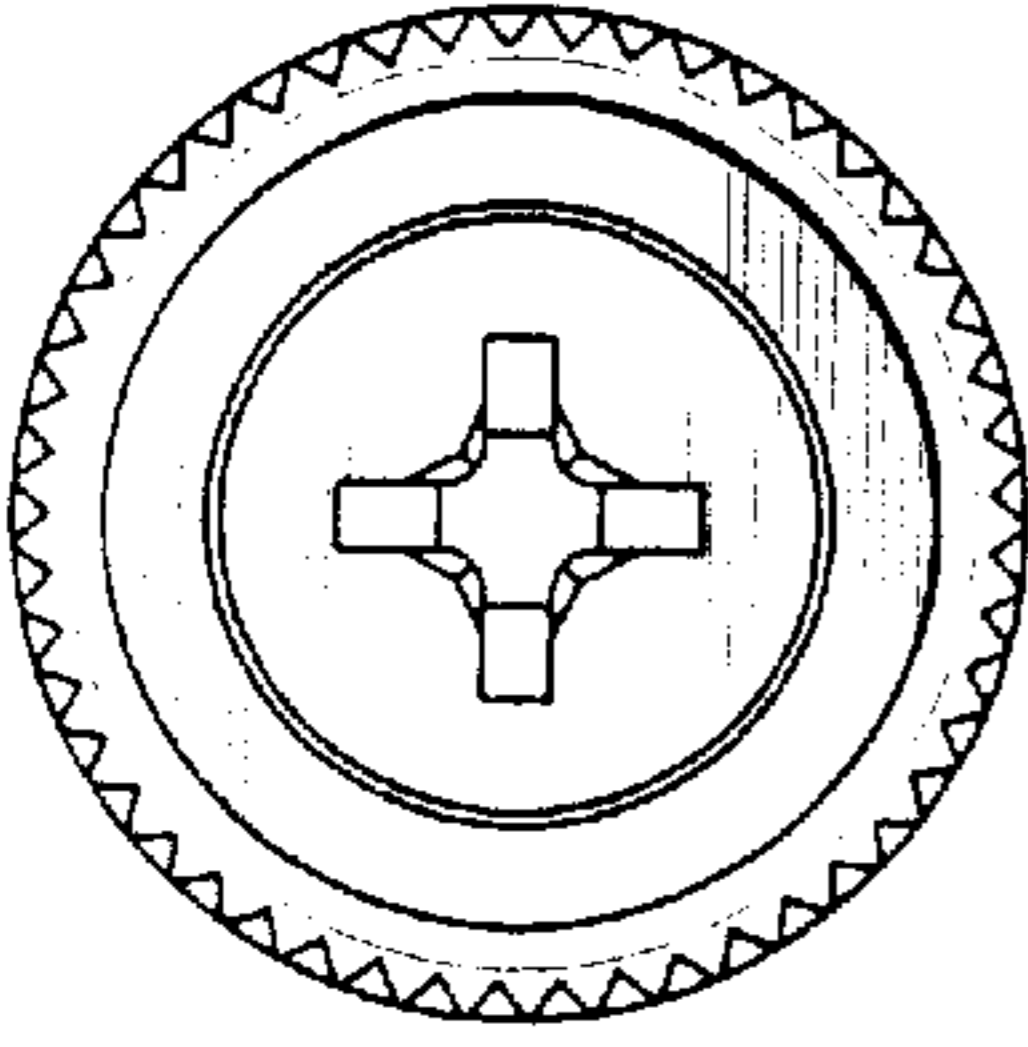


FIG. 47

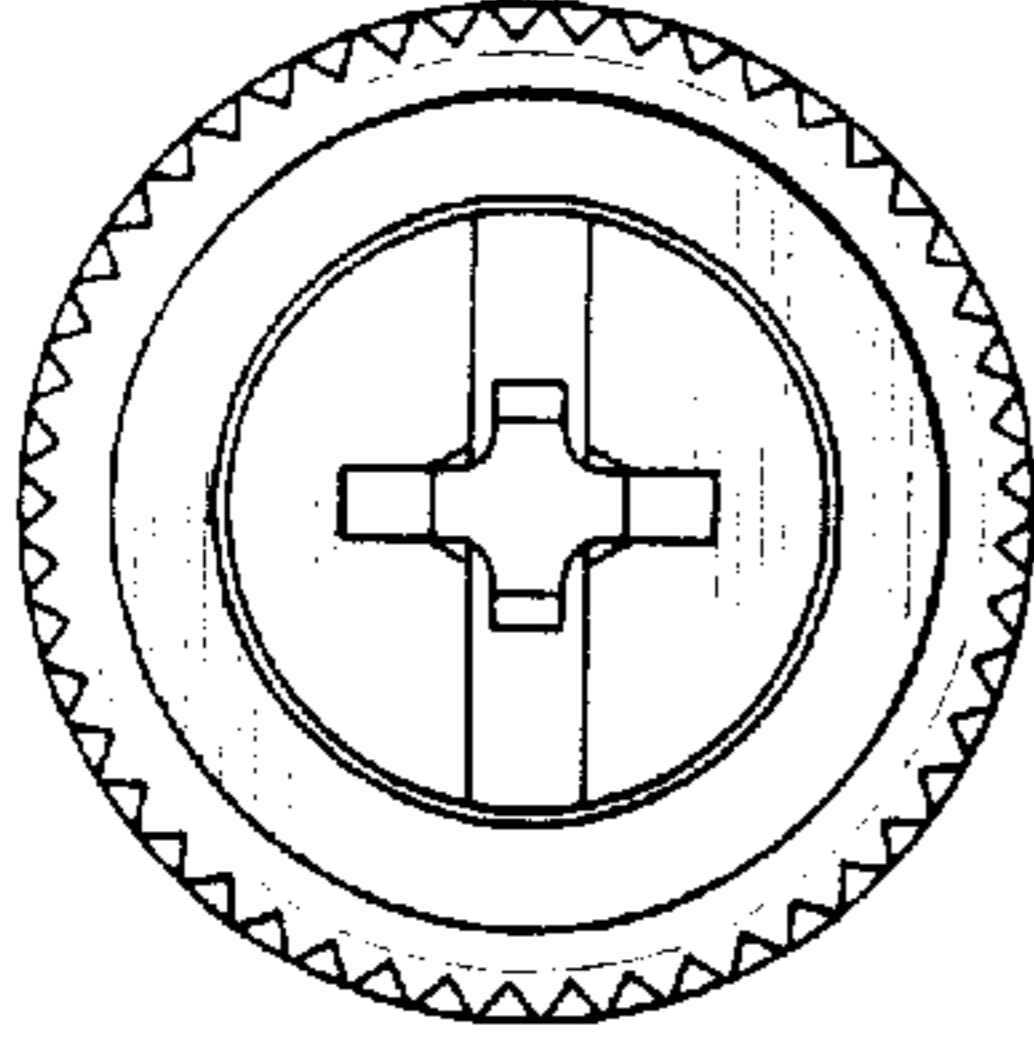


FIG. 48

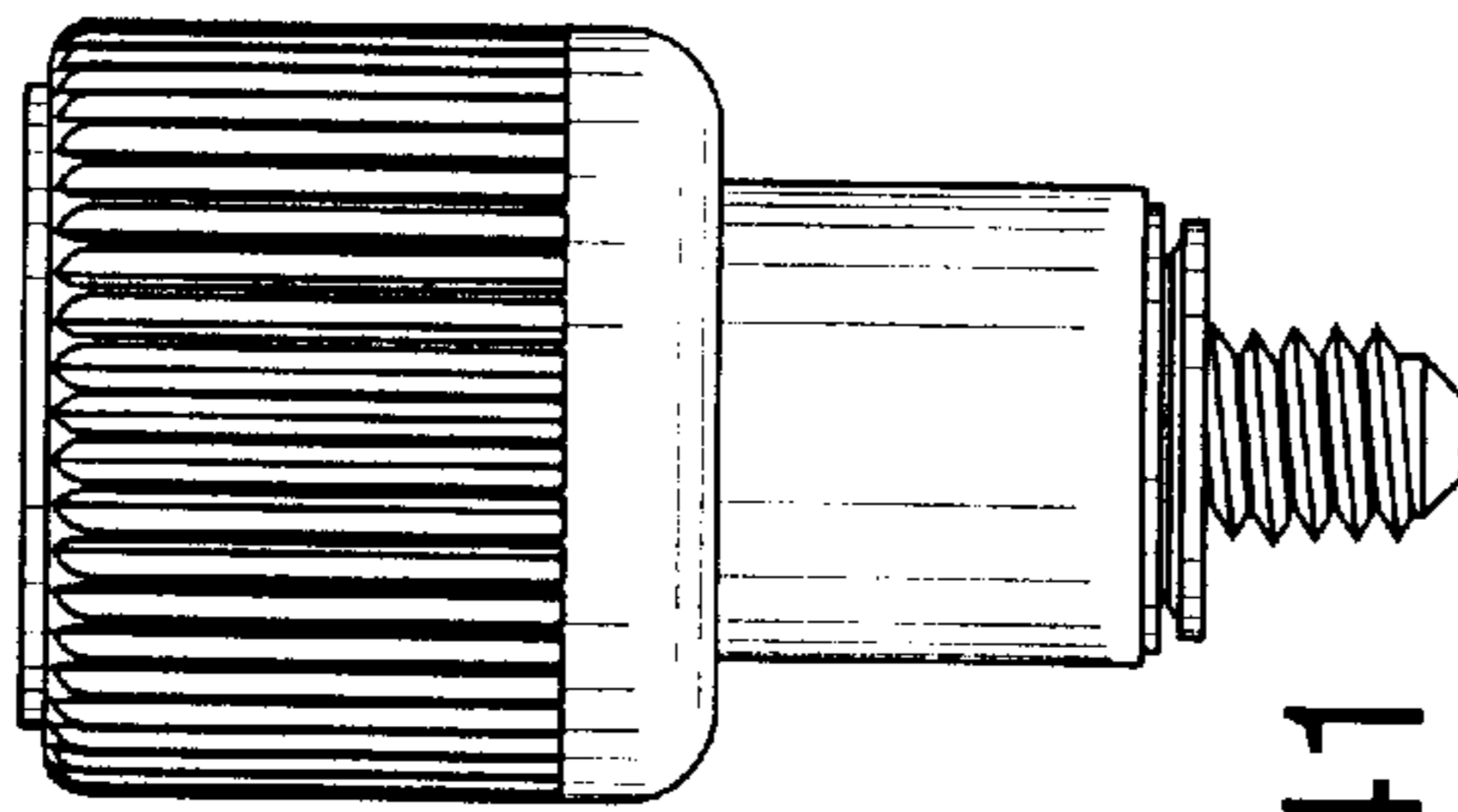


FIG. 41

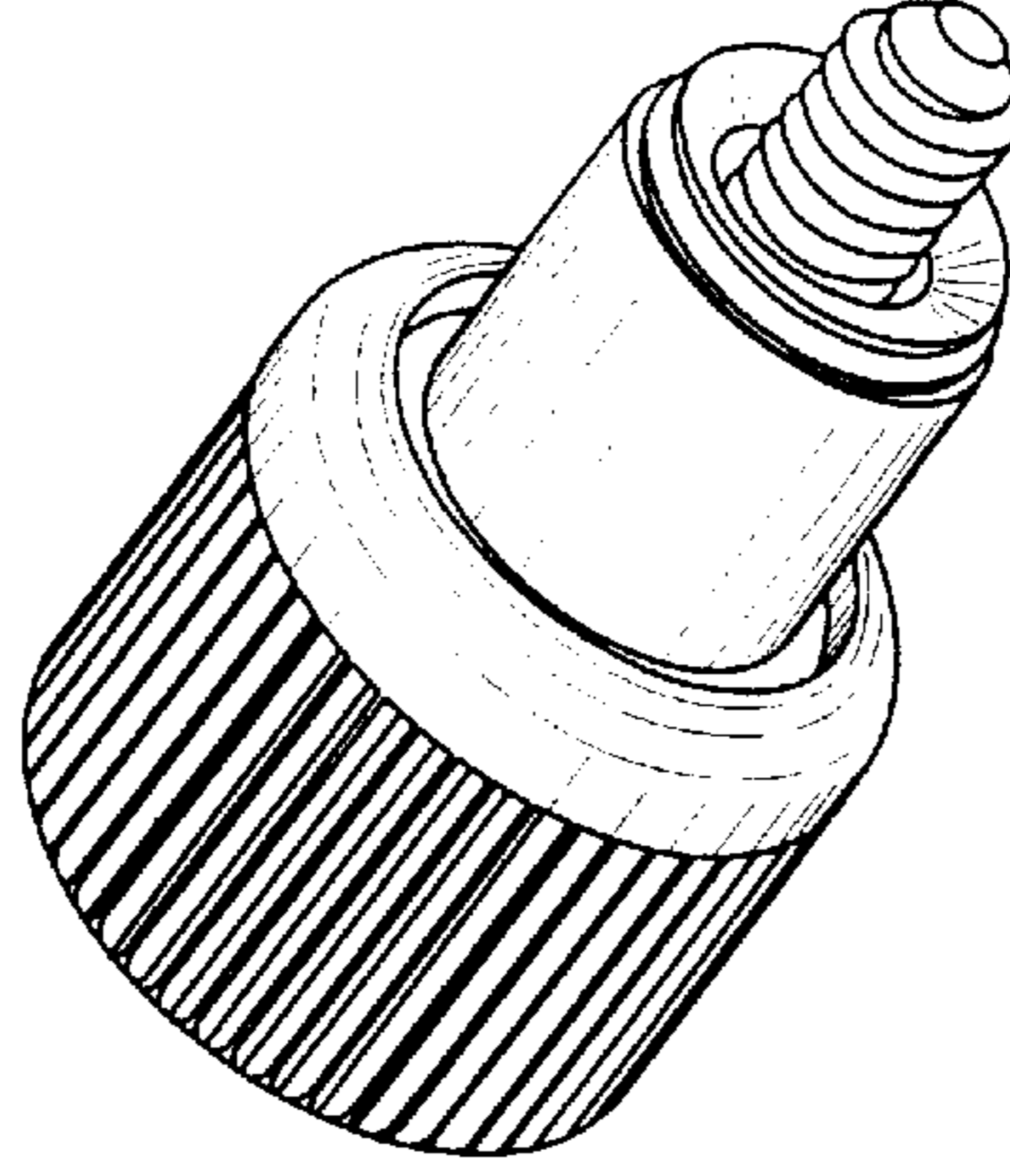


FIG. 42

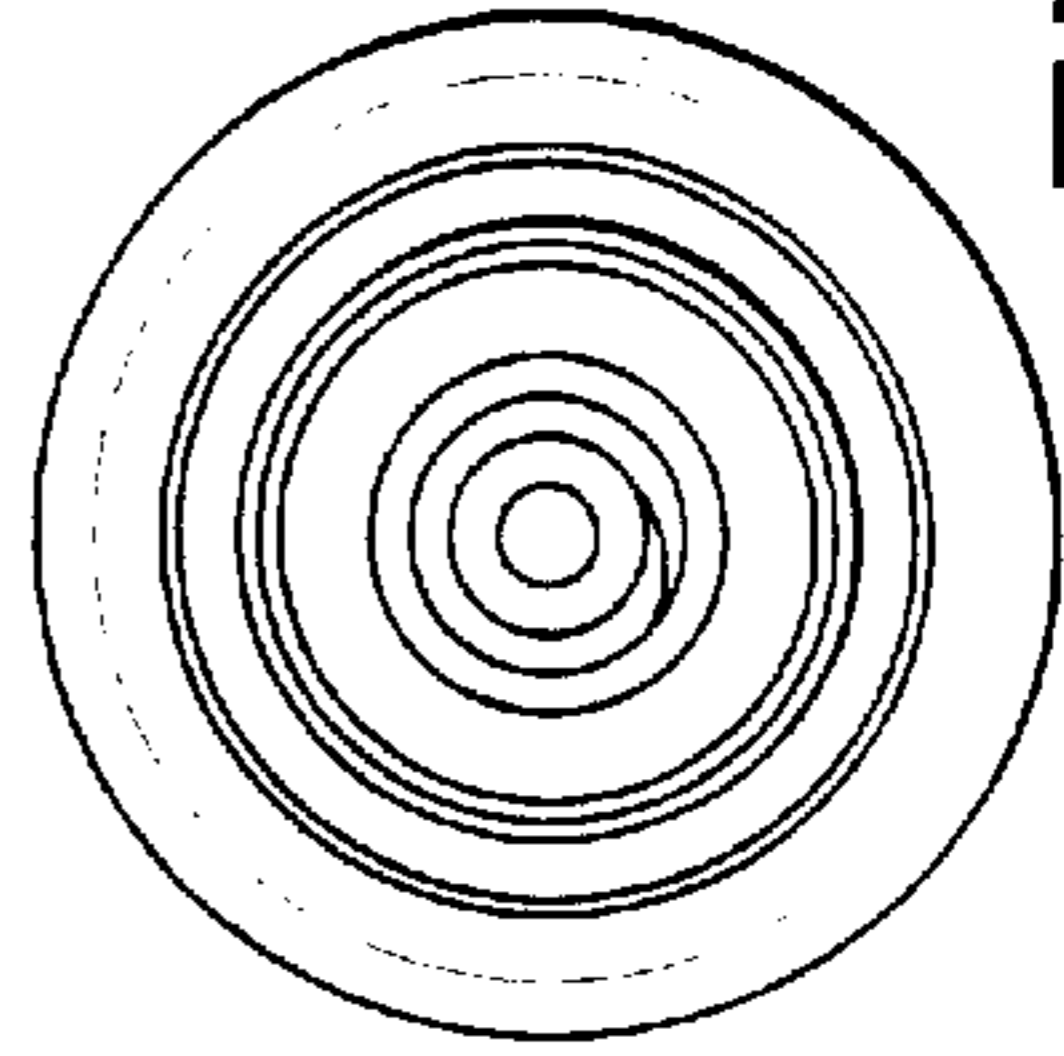


FIG. 43

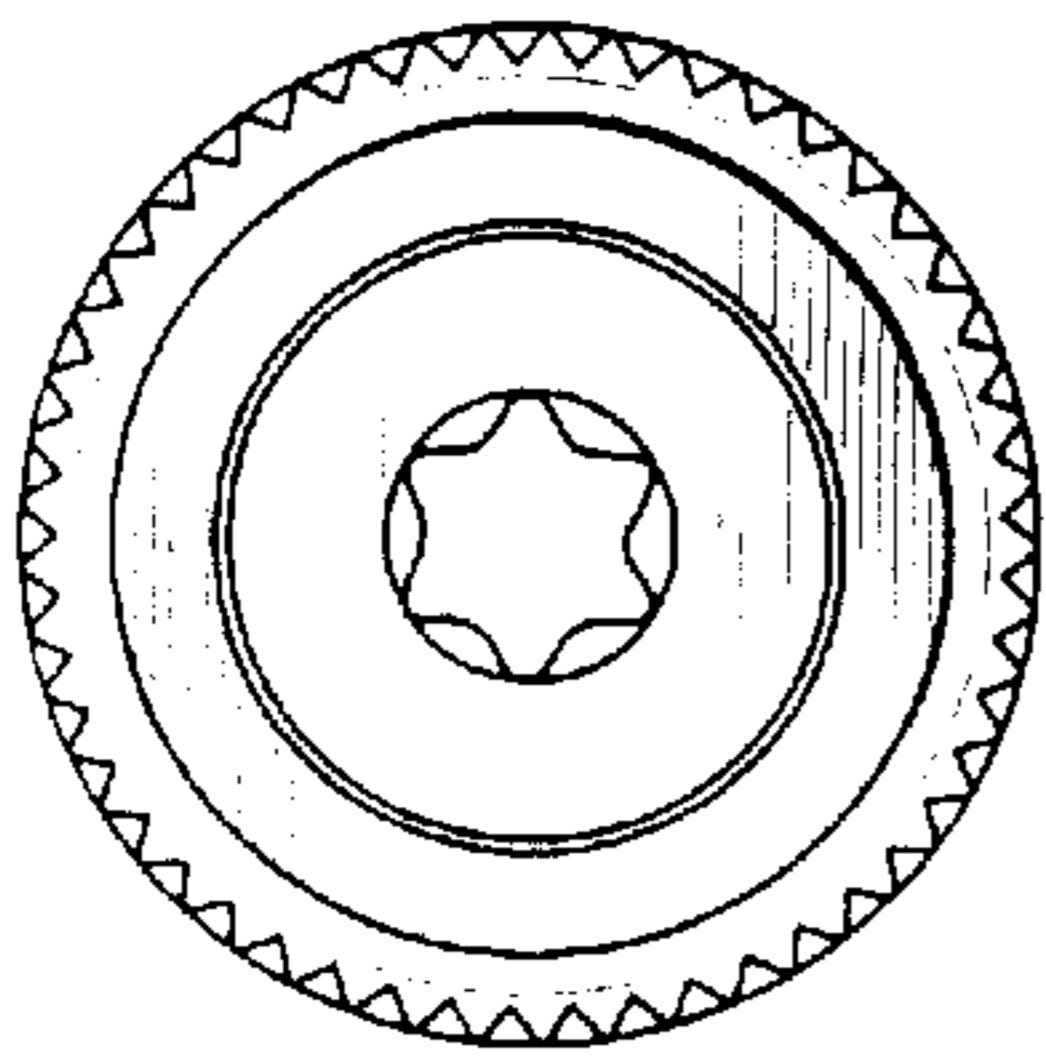


FIG. 52

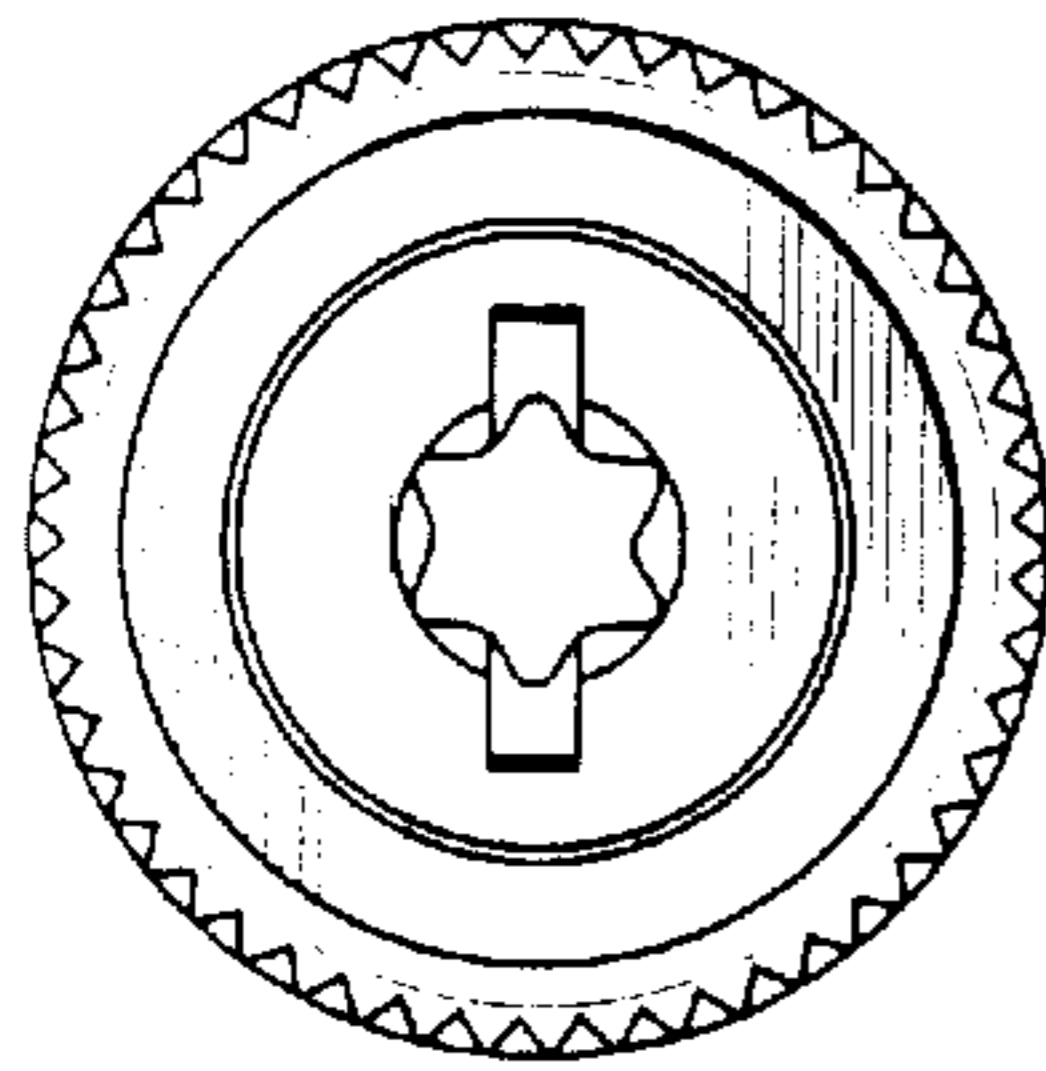


FIG. 53

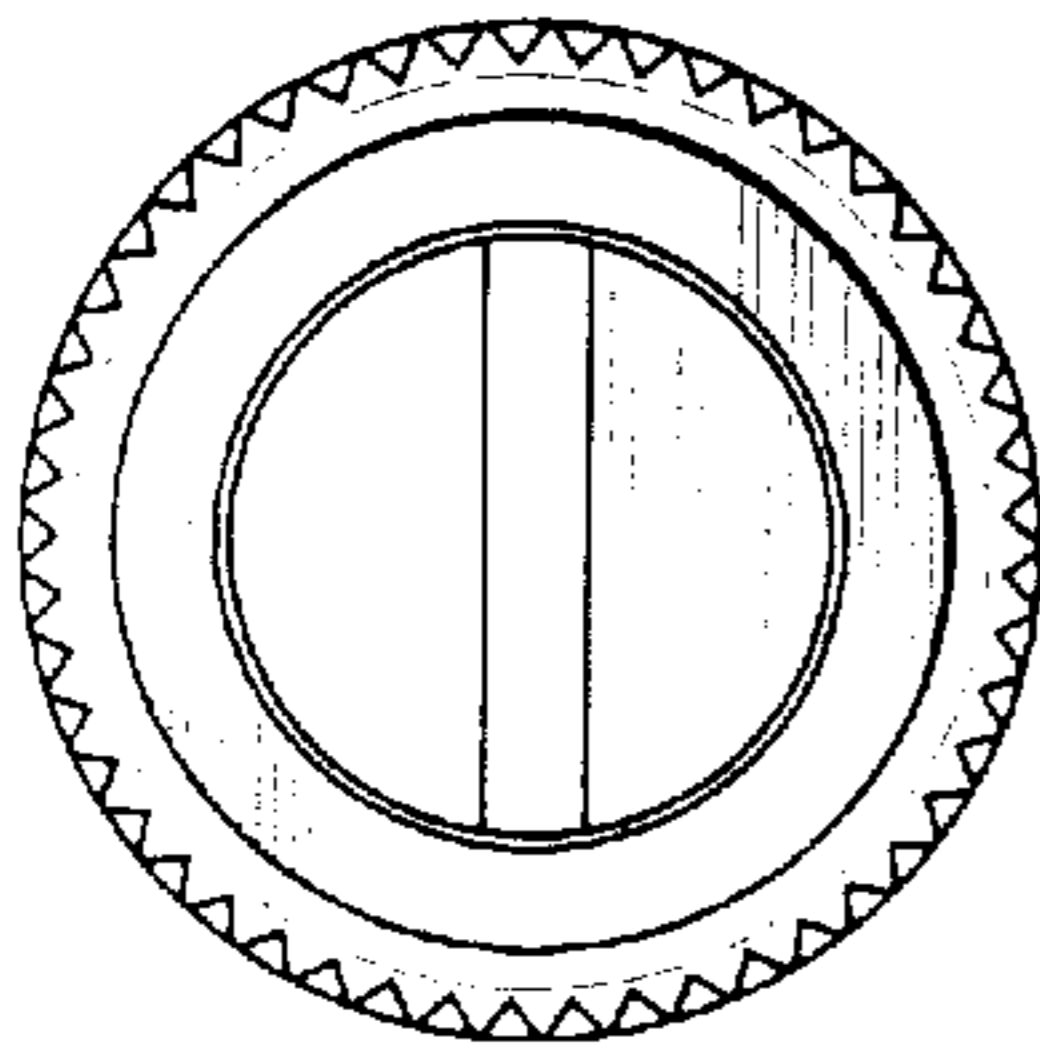


FIG. 54

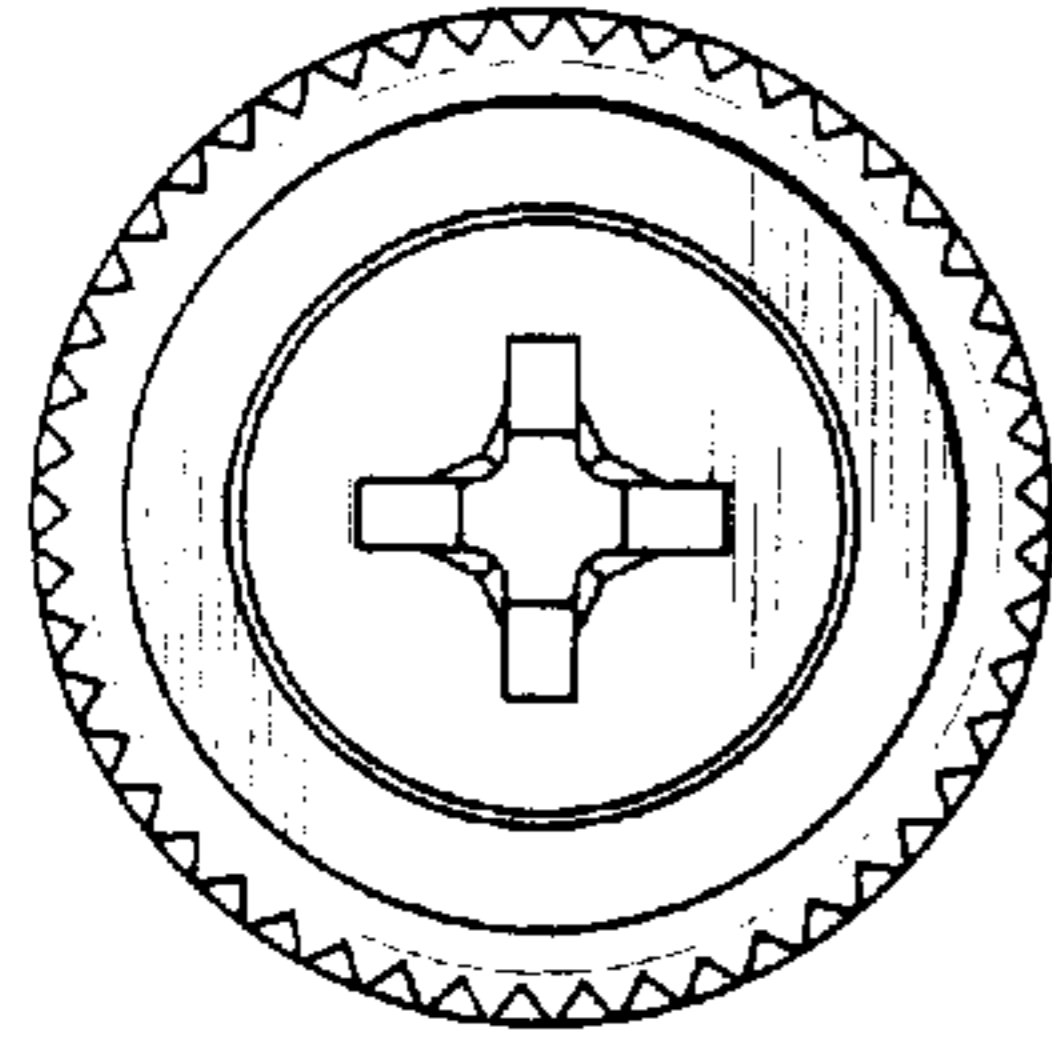


FIG. 55

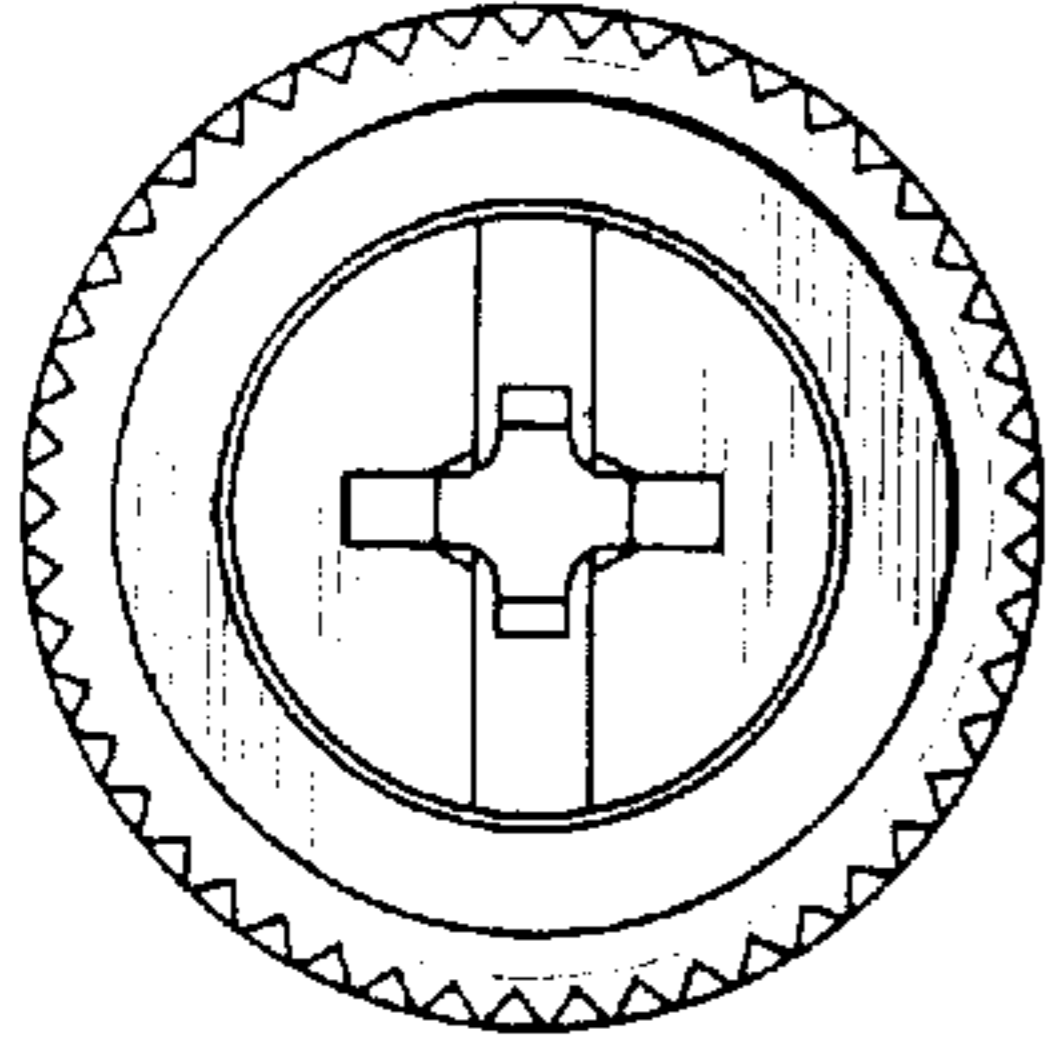


FIG. 56

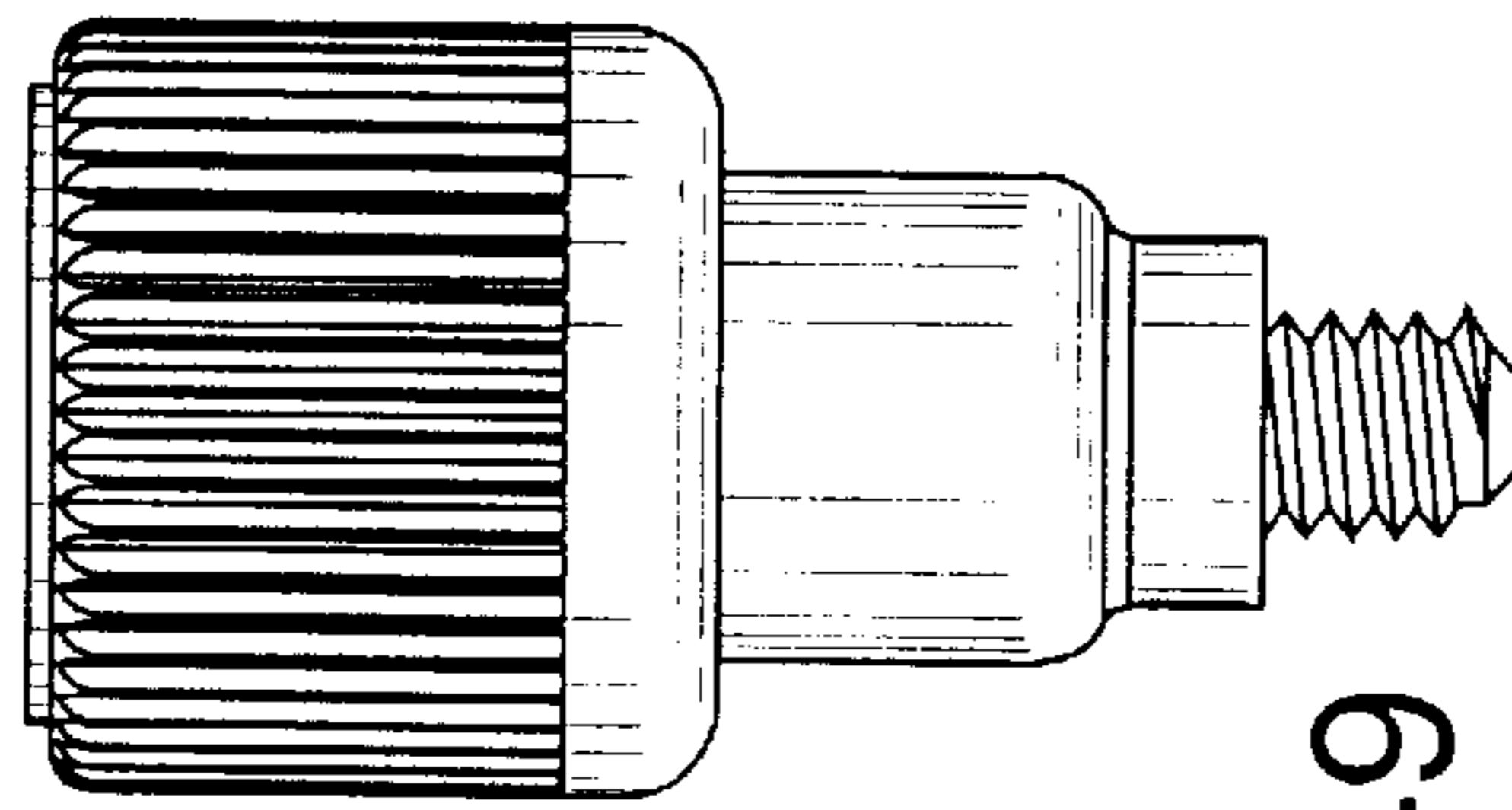


FIG. 49

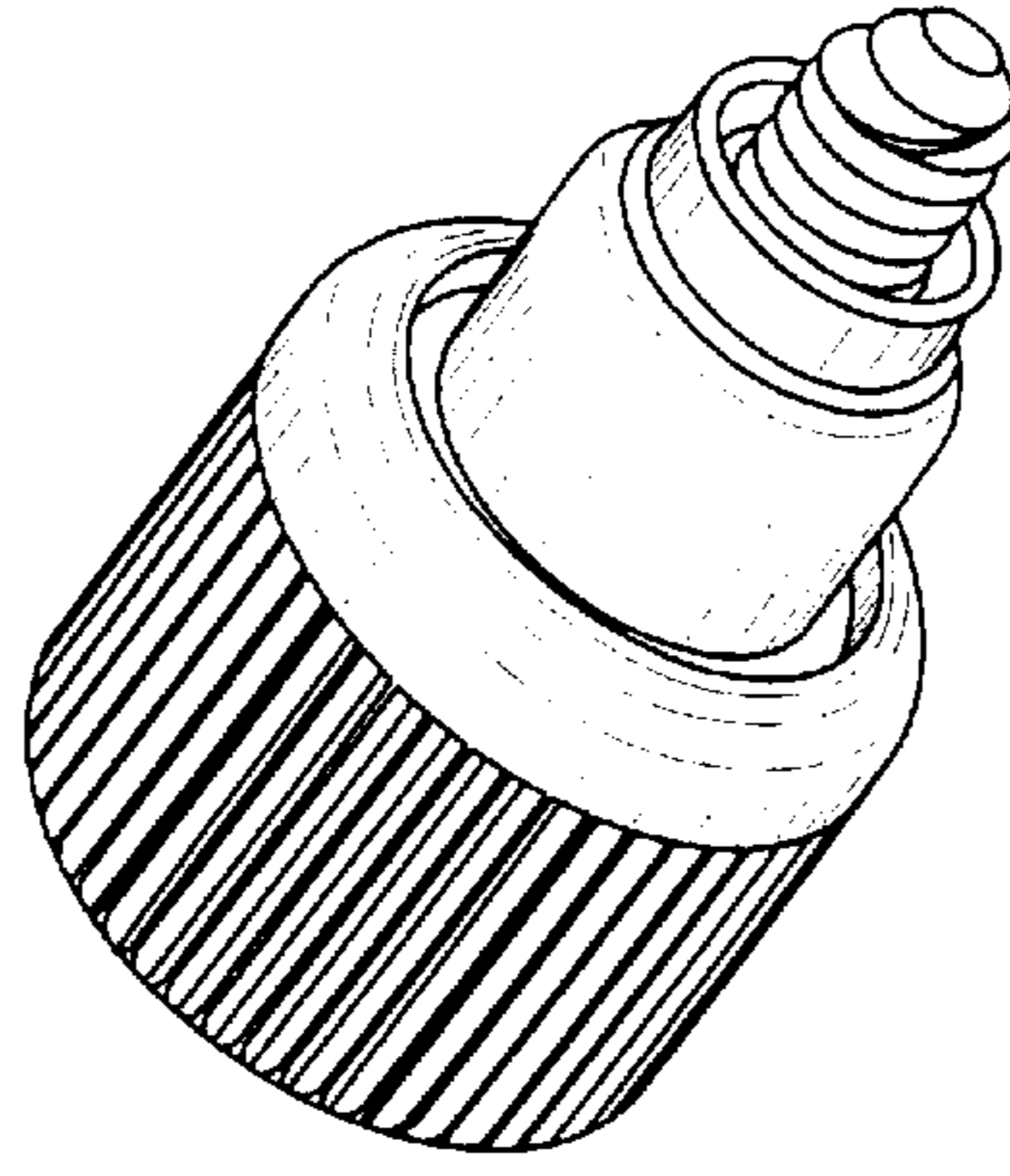


FIG. 50

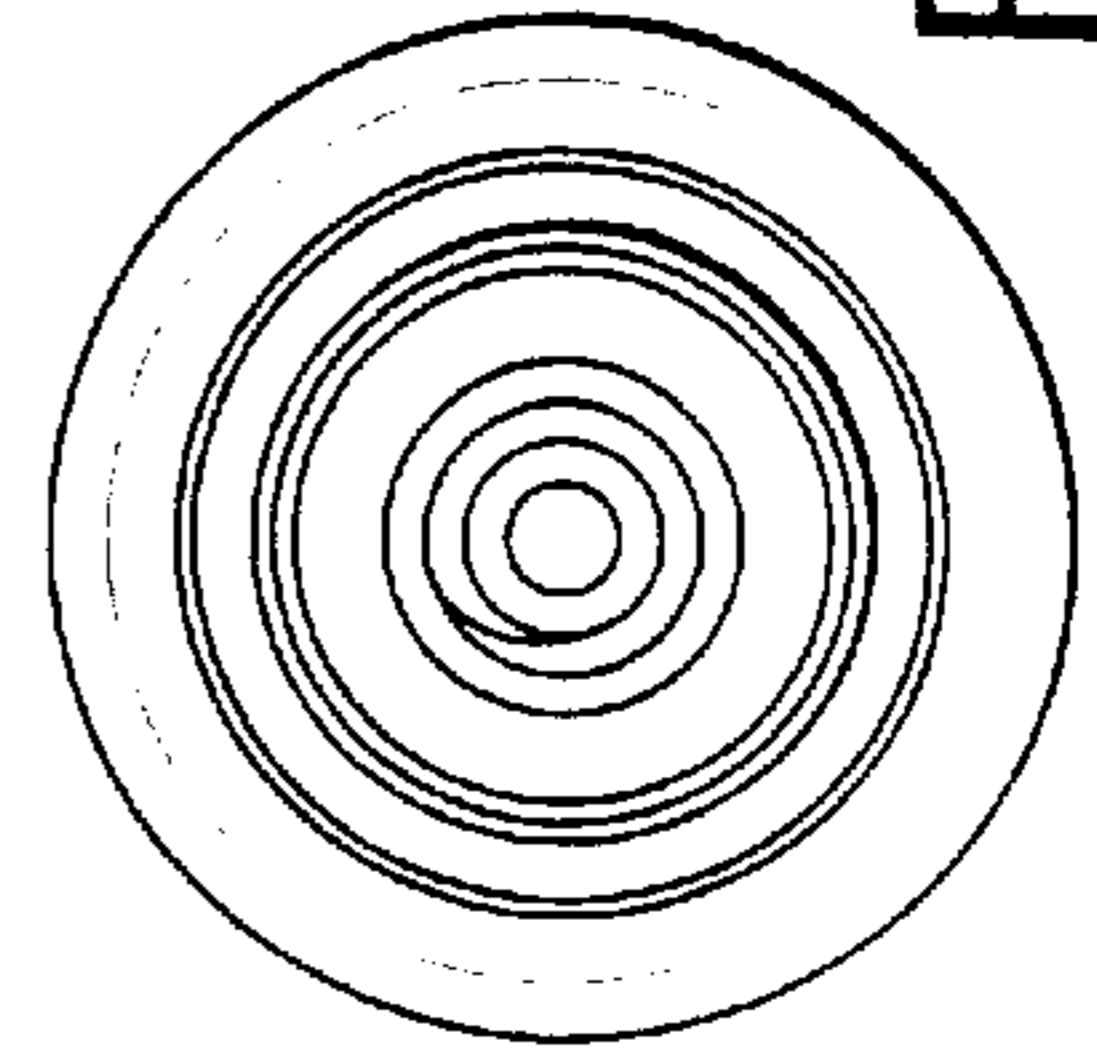


FIG. 51

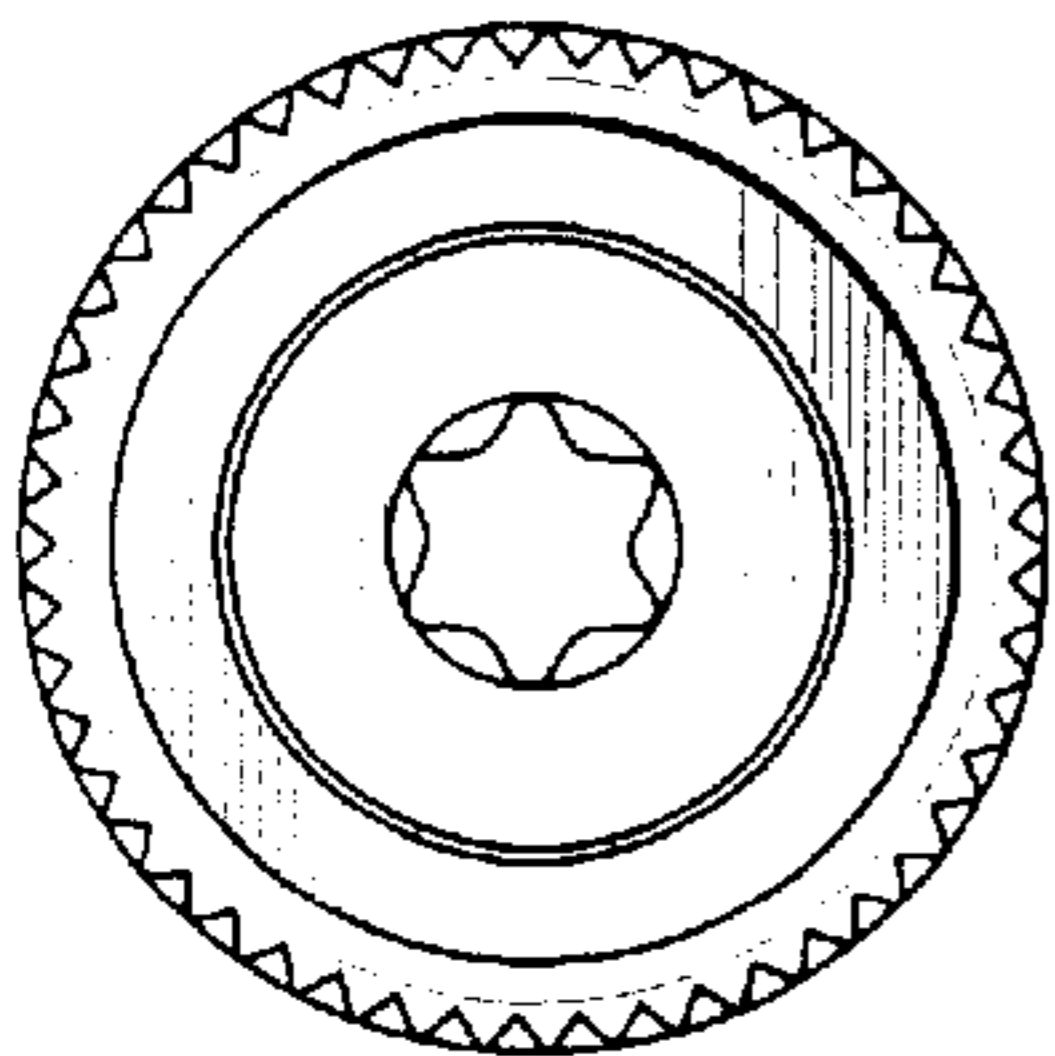


FIG. 60

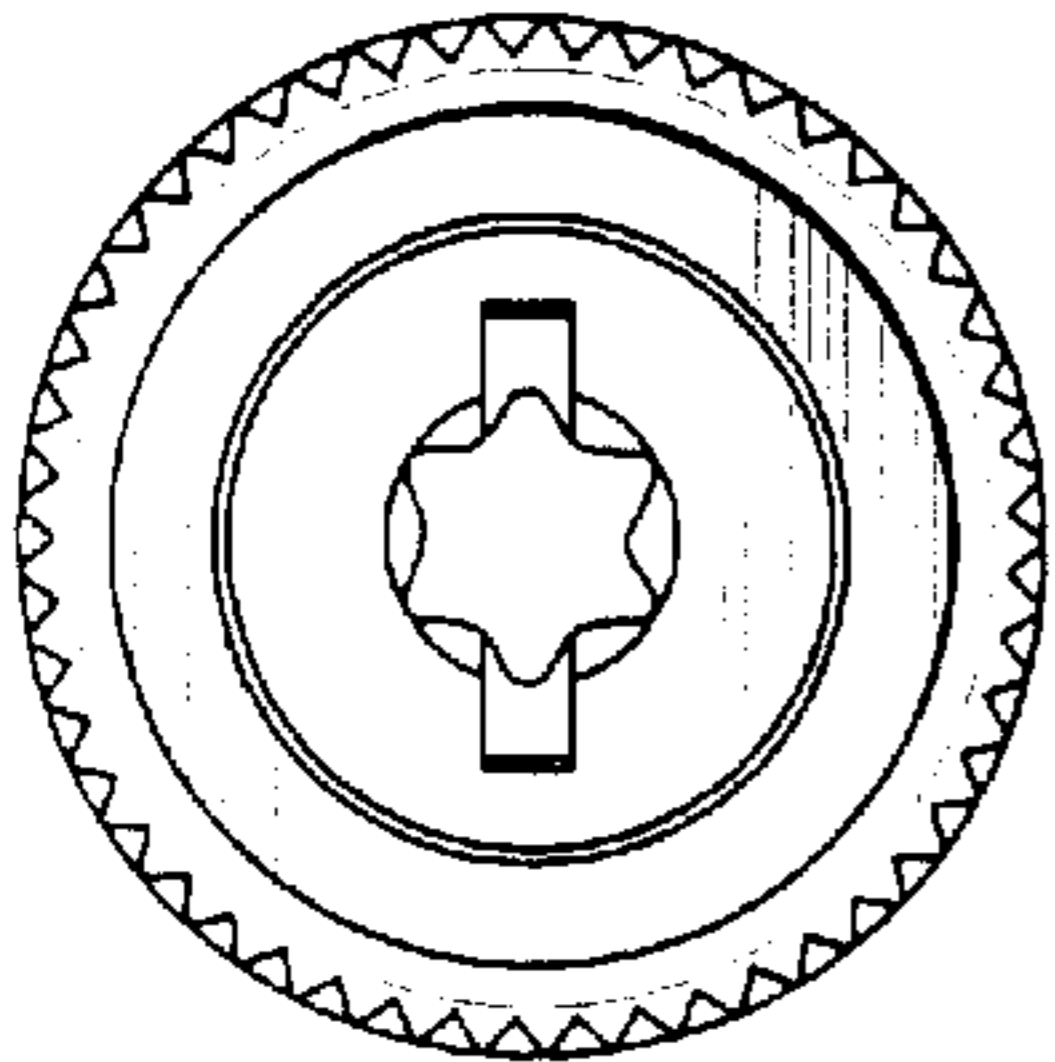


FIG. 61

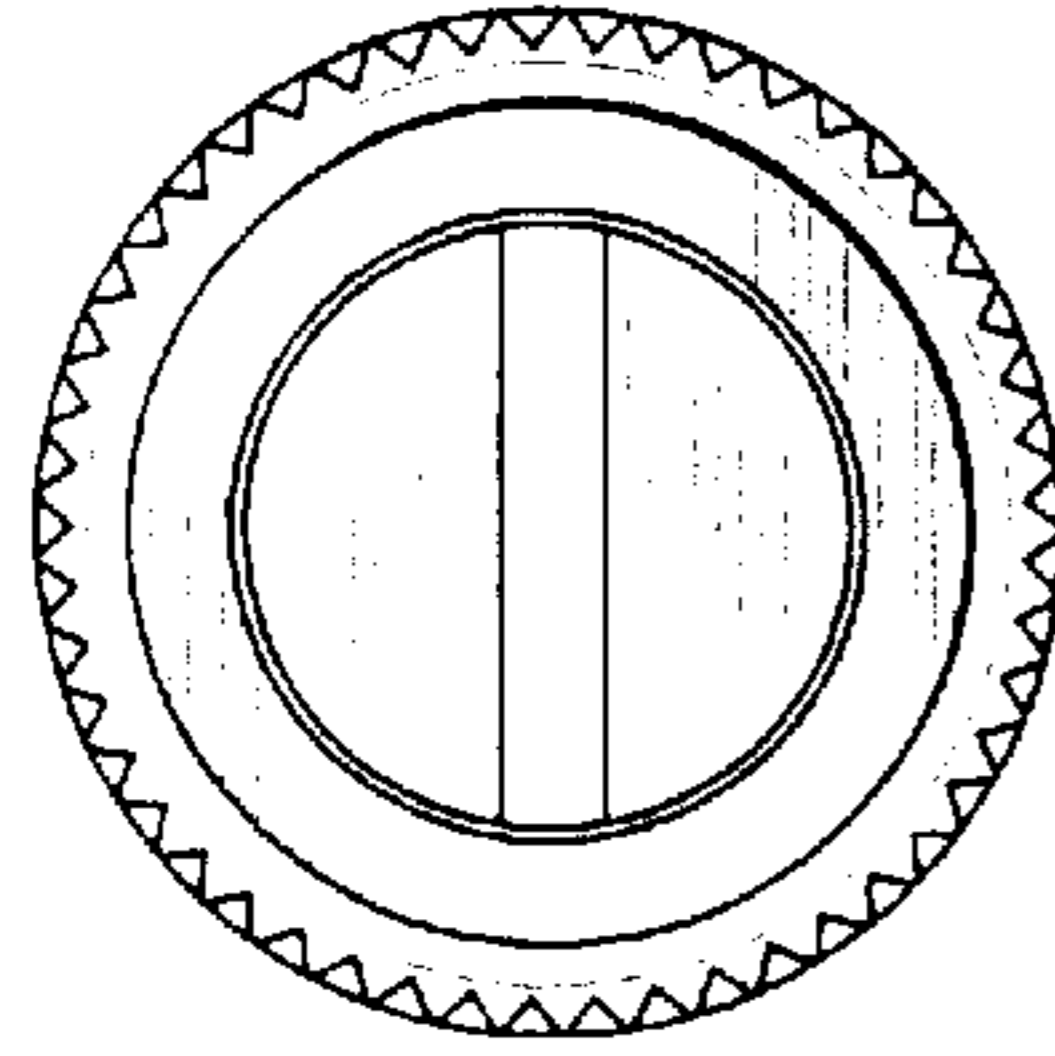


FIG. 62

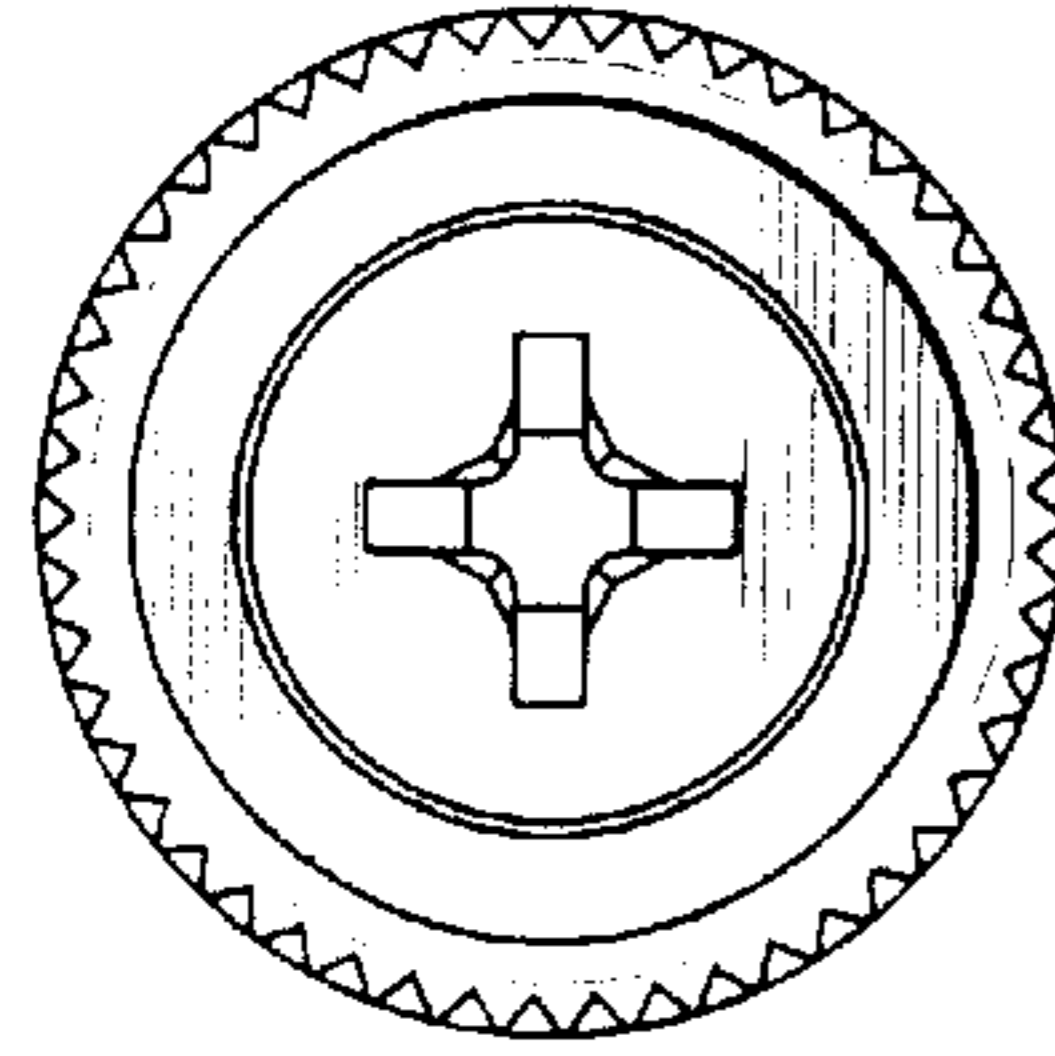


FIG. 63

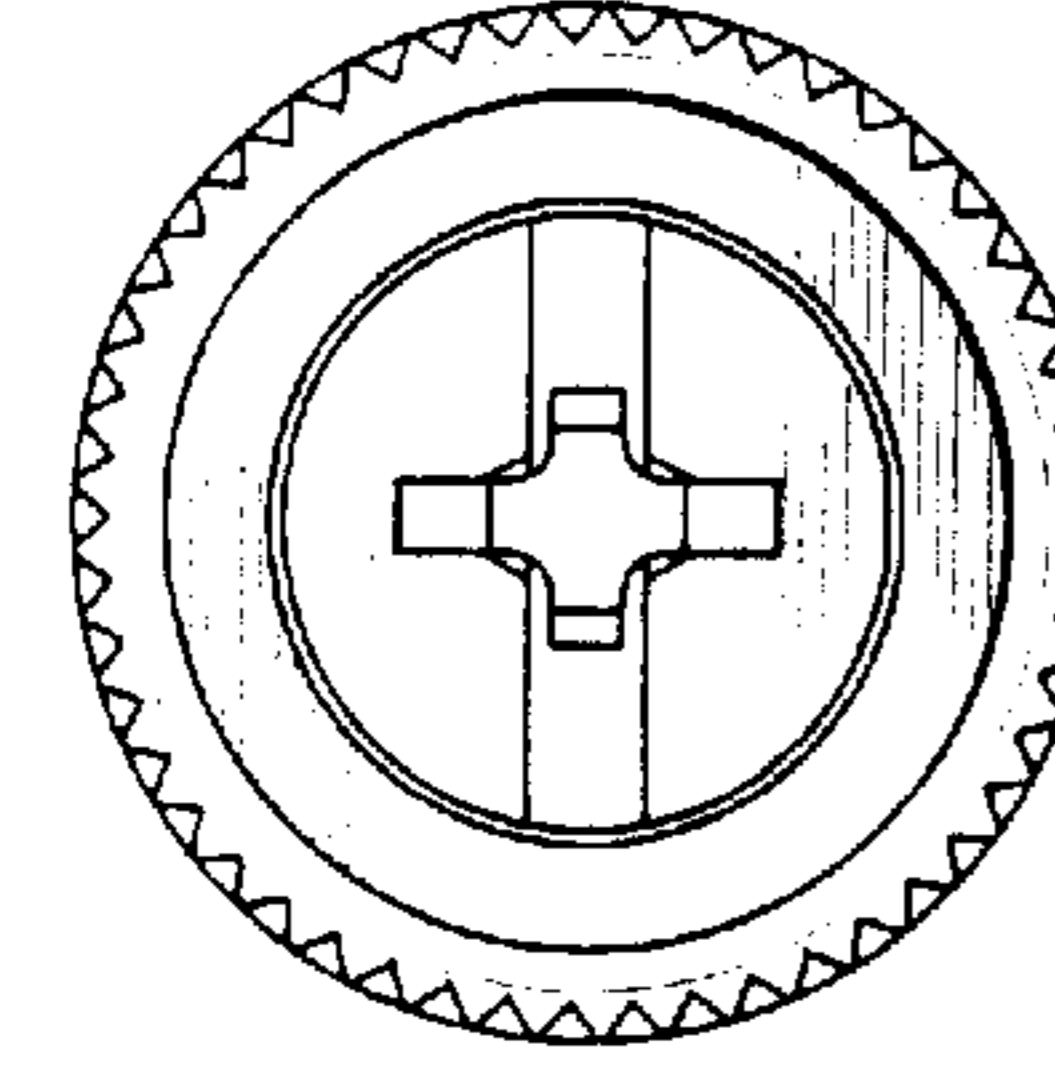


FIG. 64

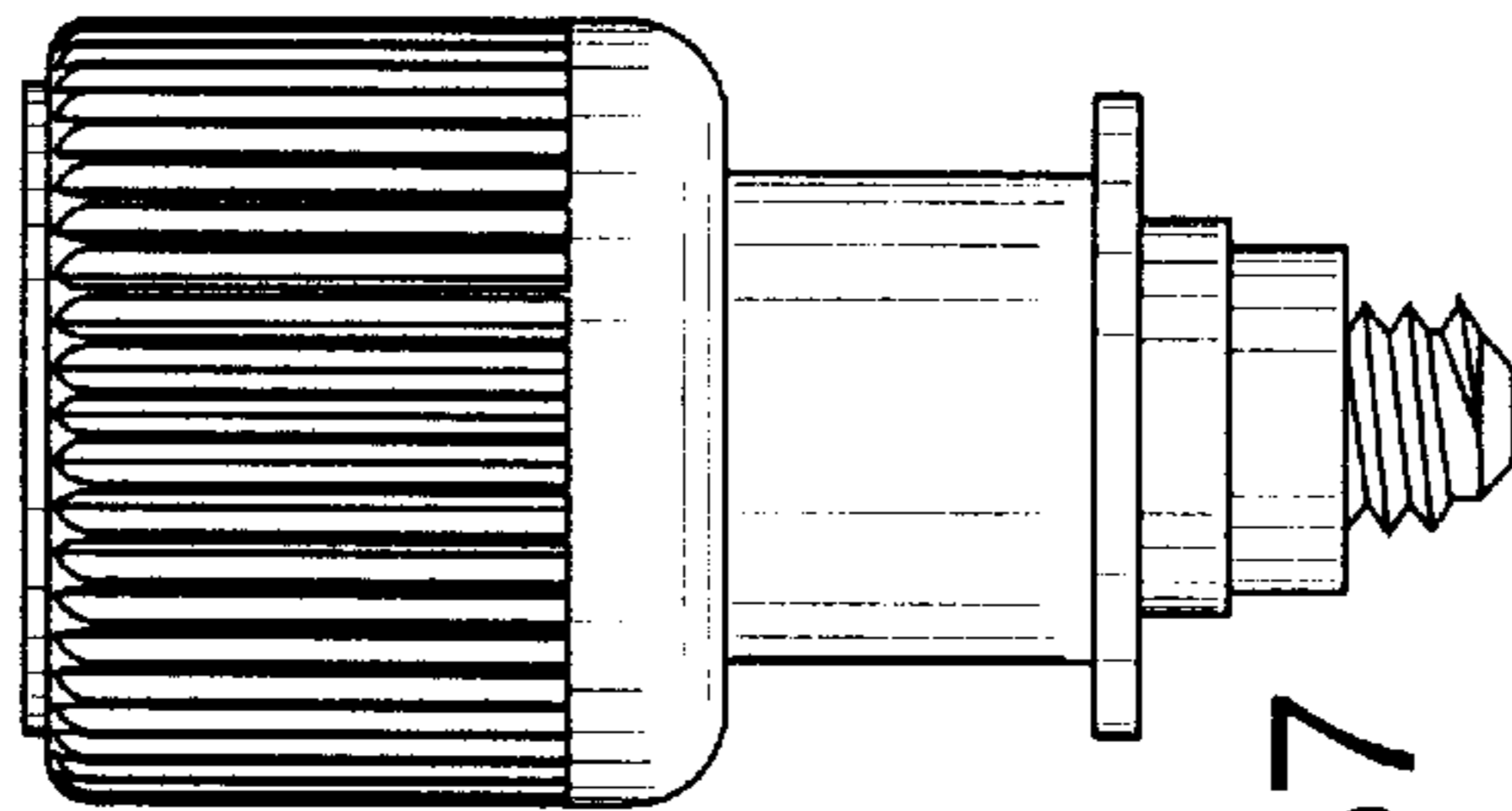


FIG. 57

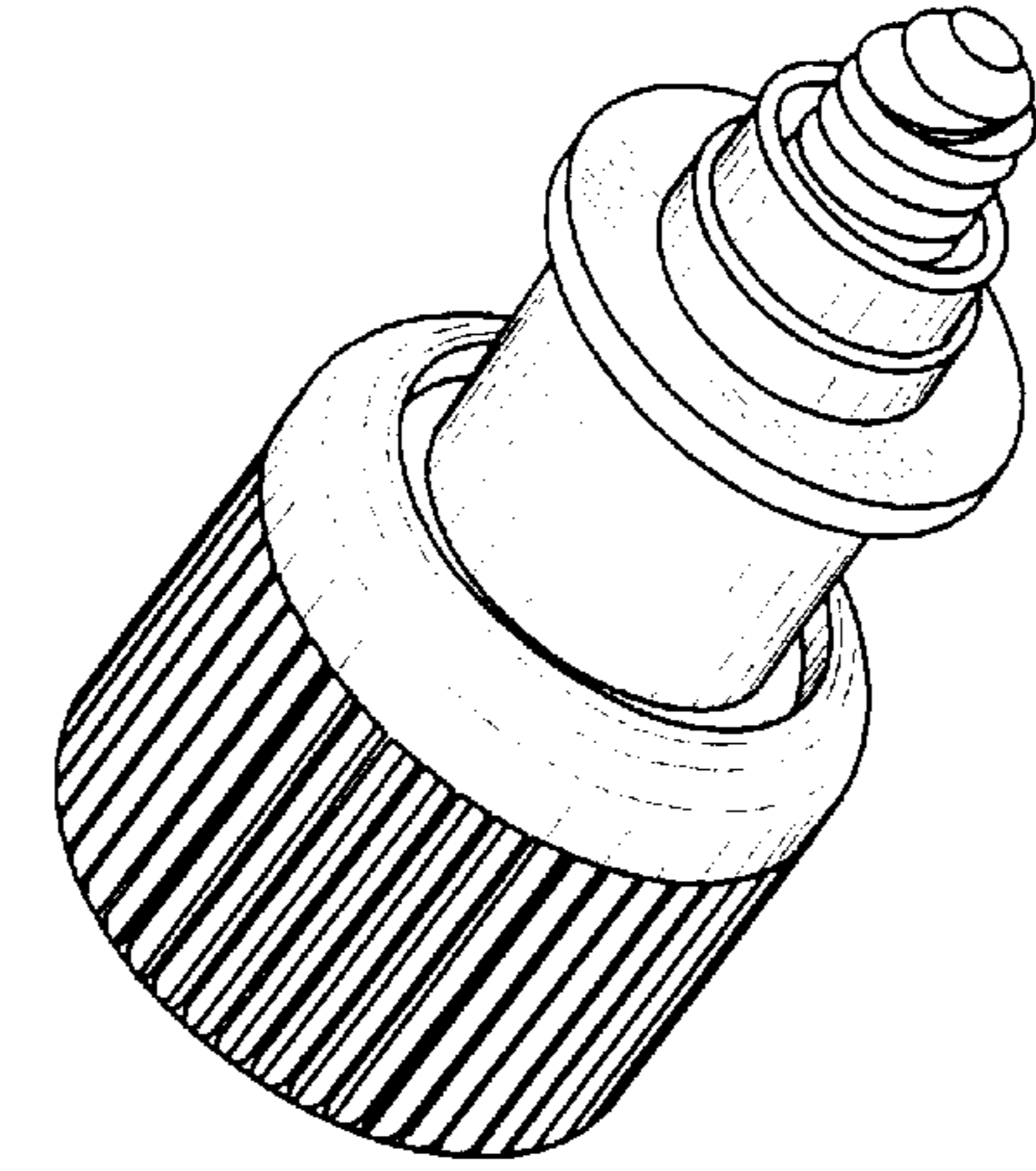


FIG. 58

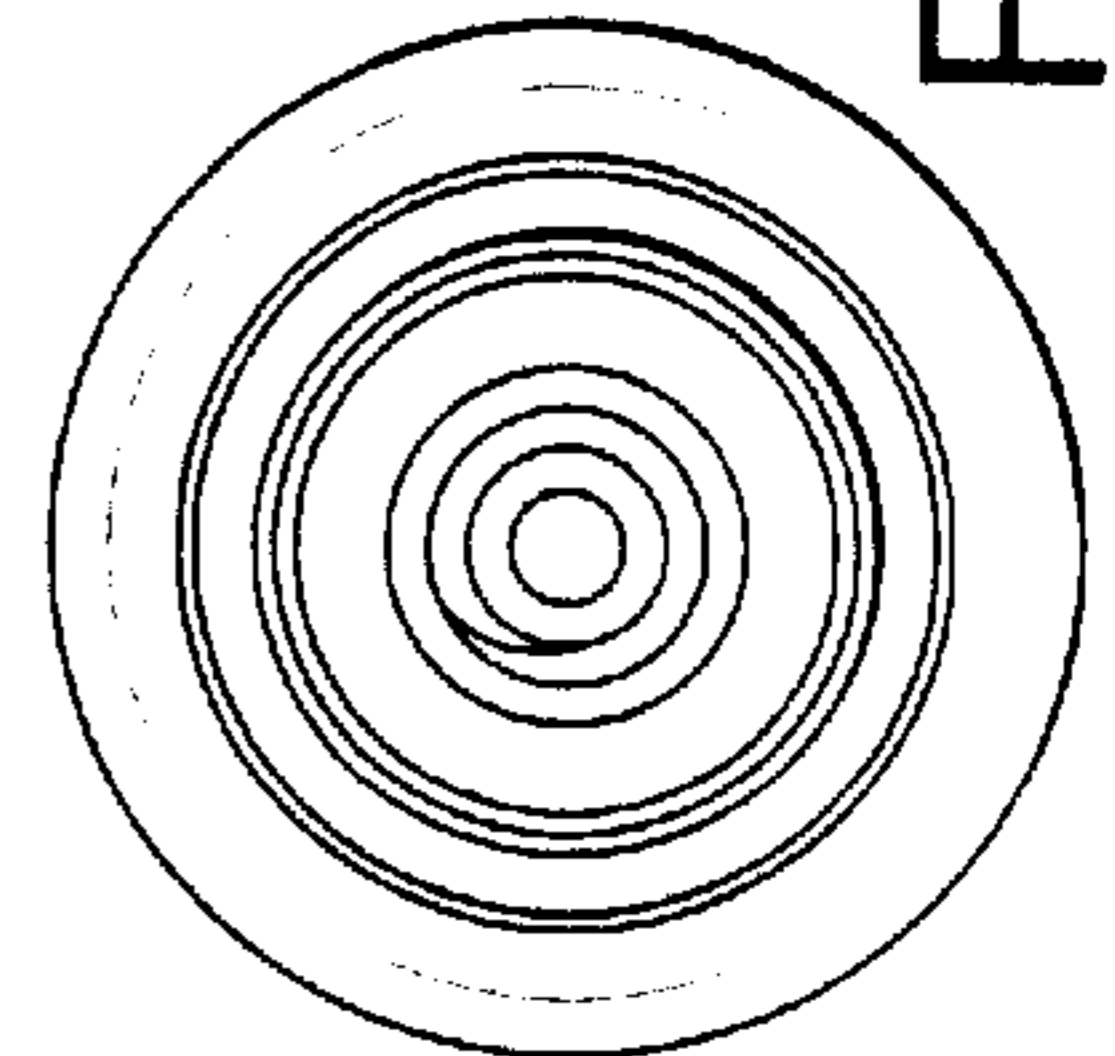


FIG. 59

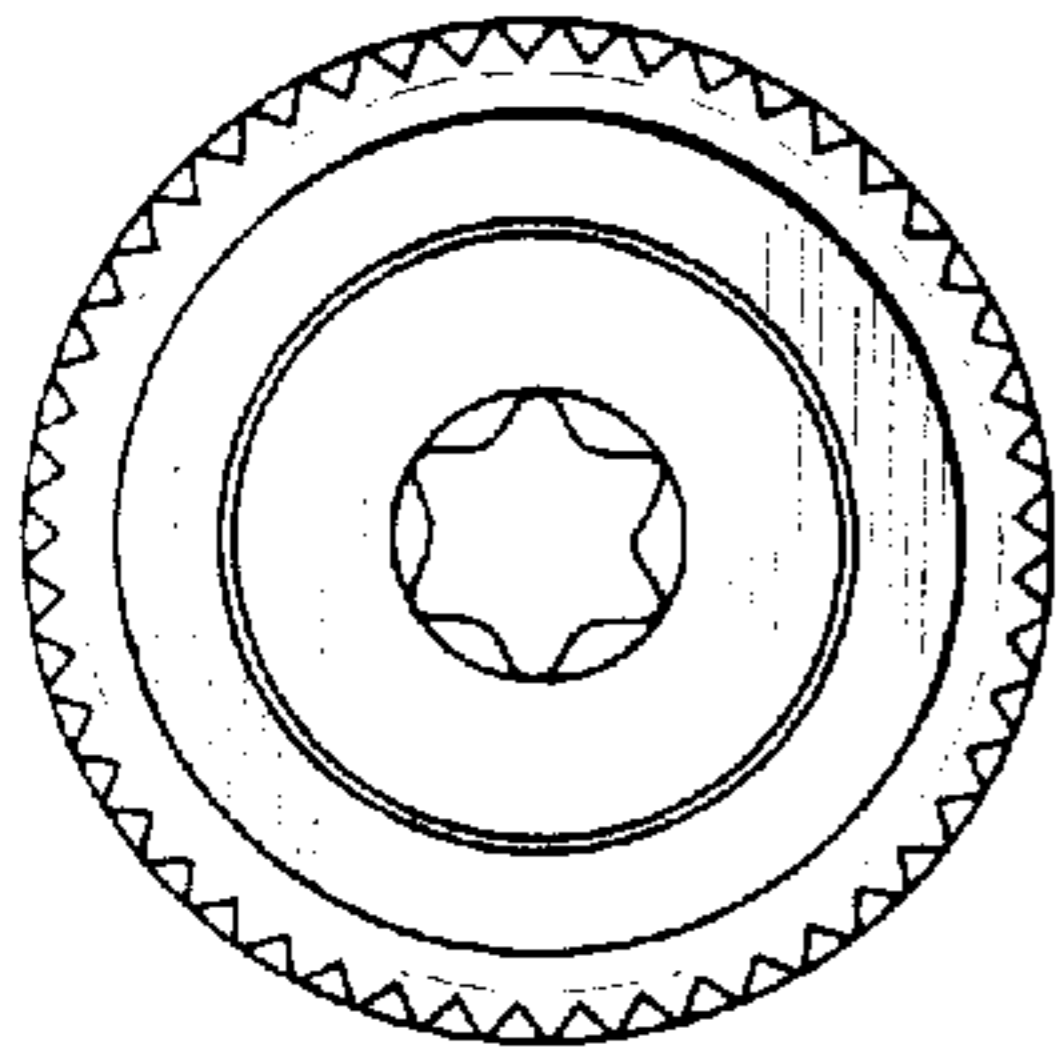


FIG. 68

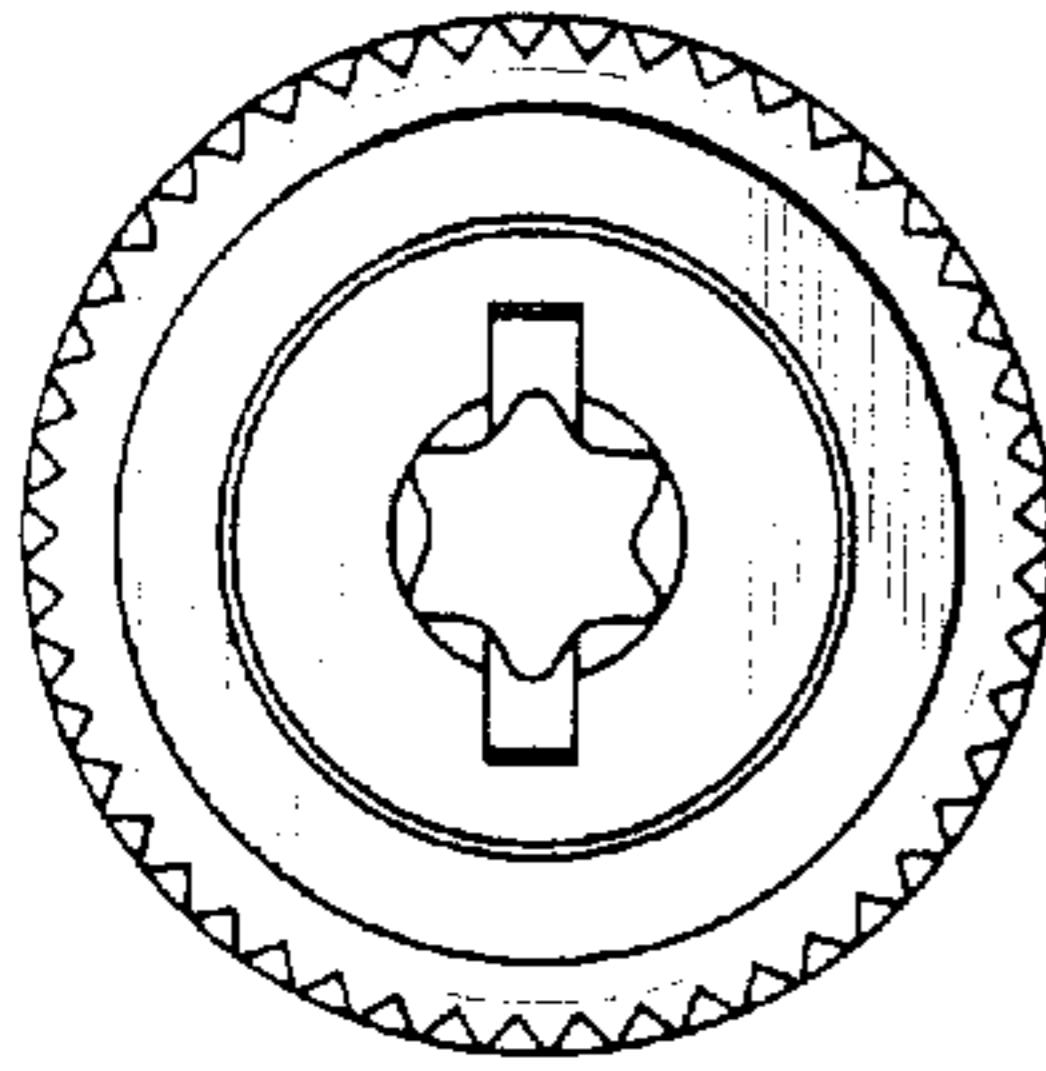


FIG. 69

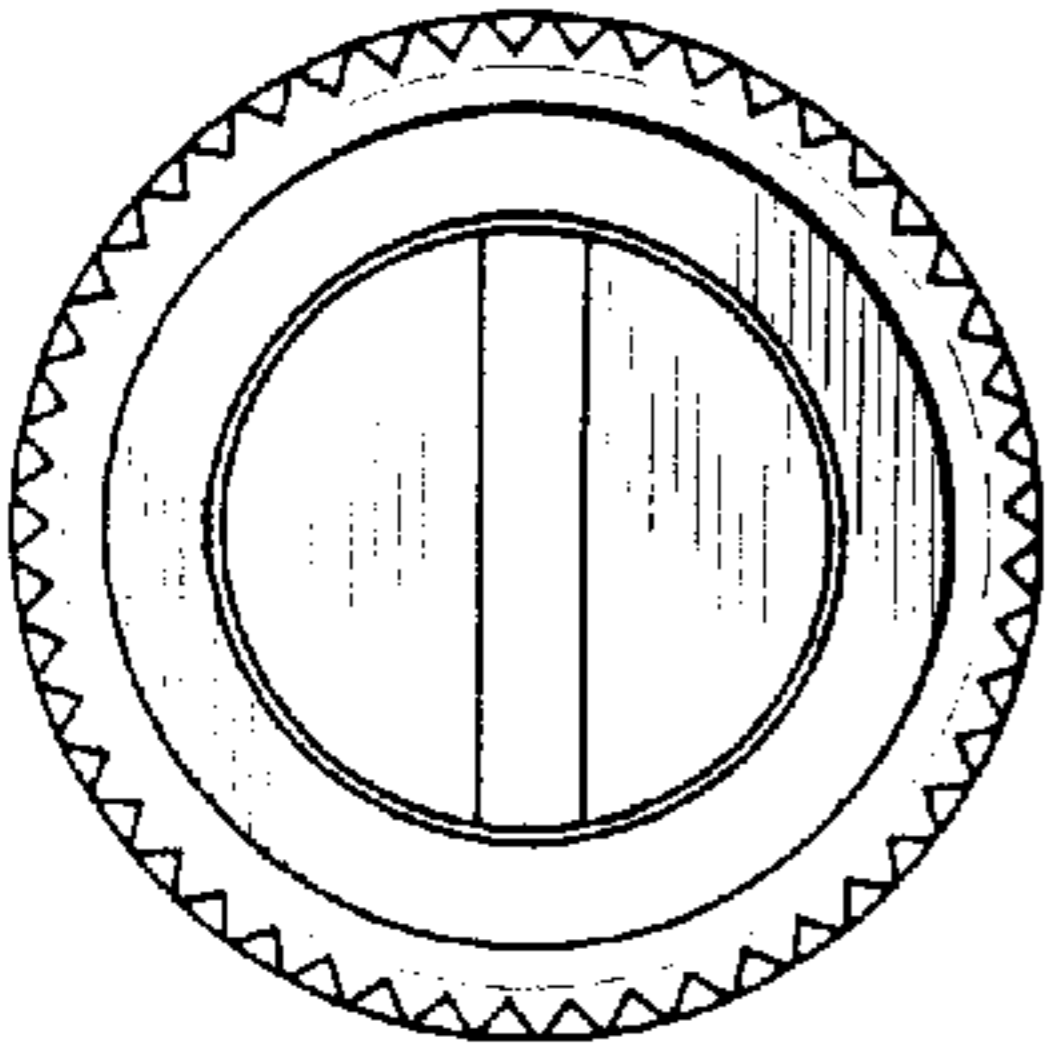


FIG. 70

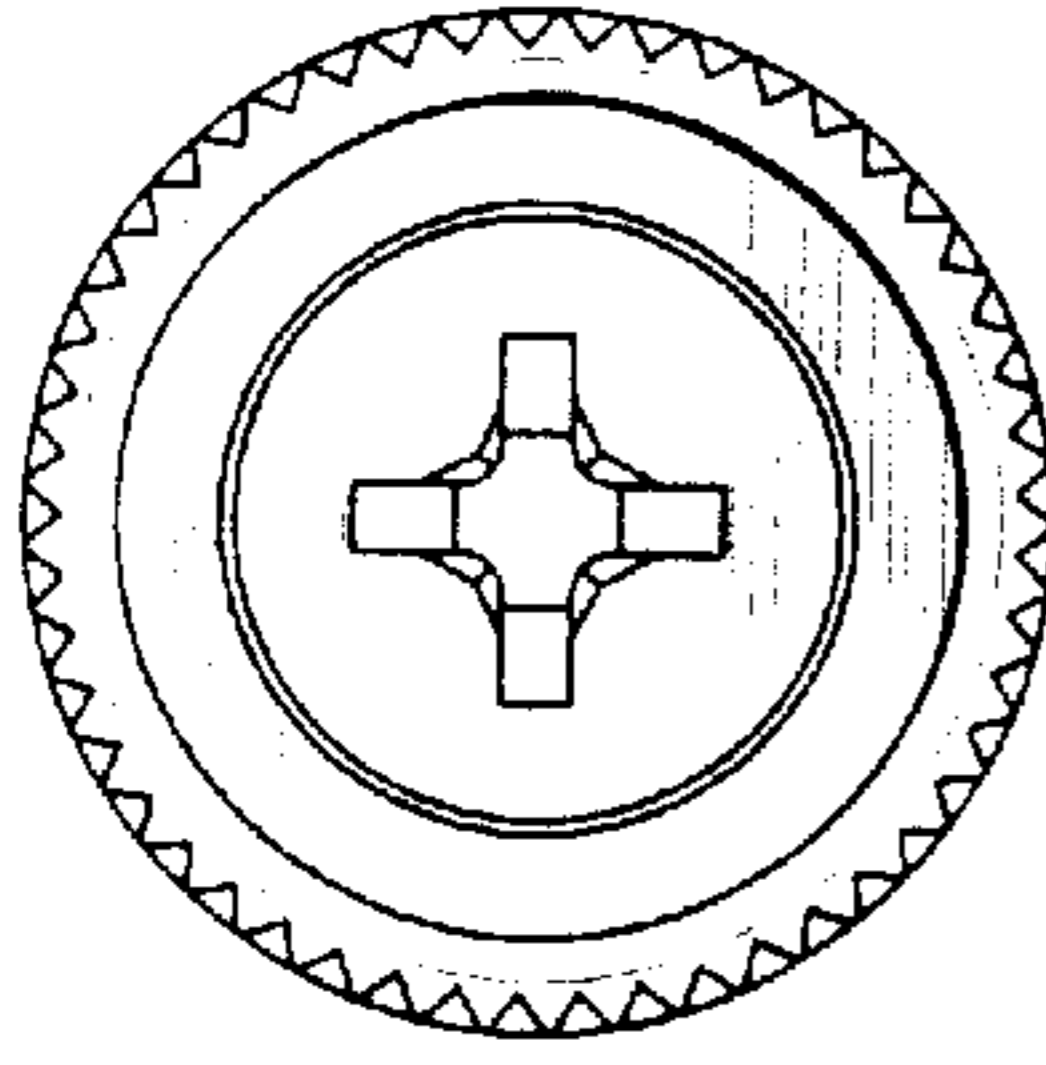


FIG. 71

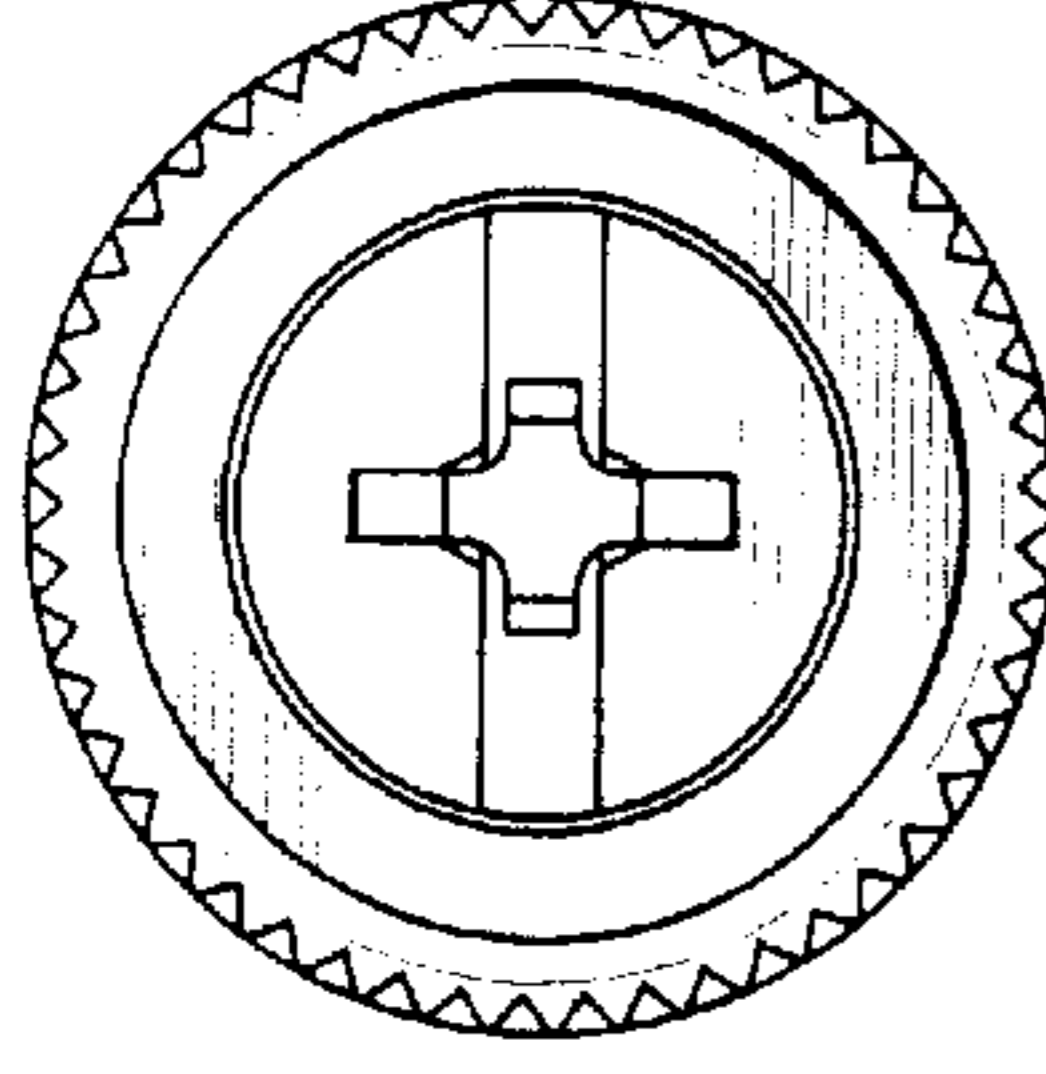


FIG. 72

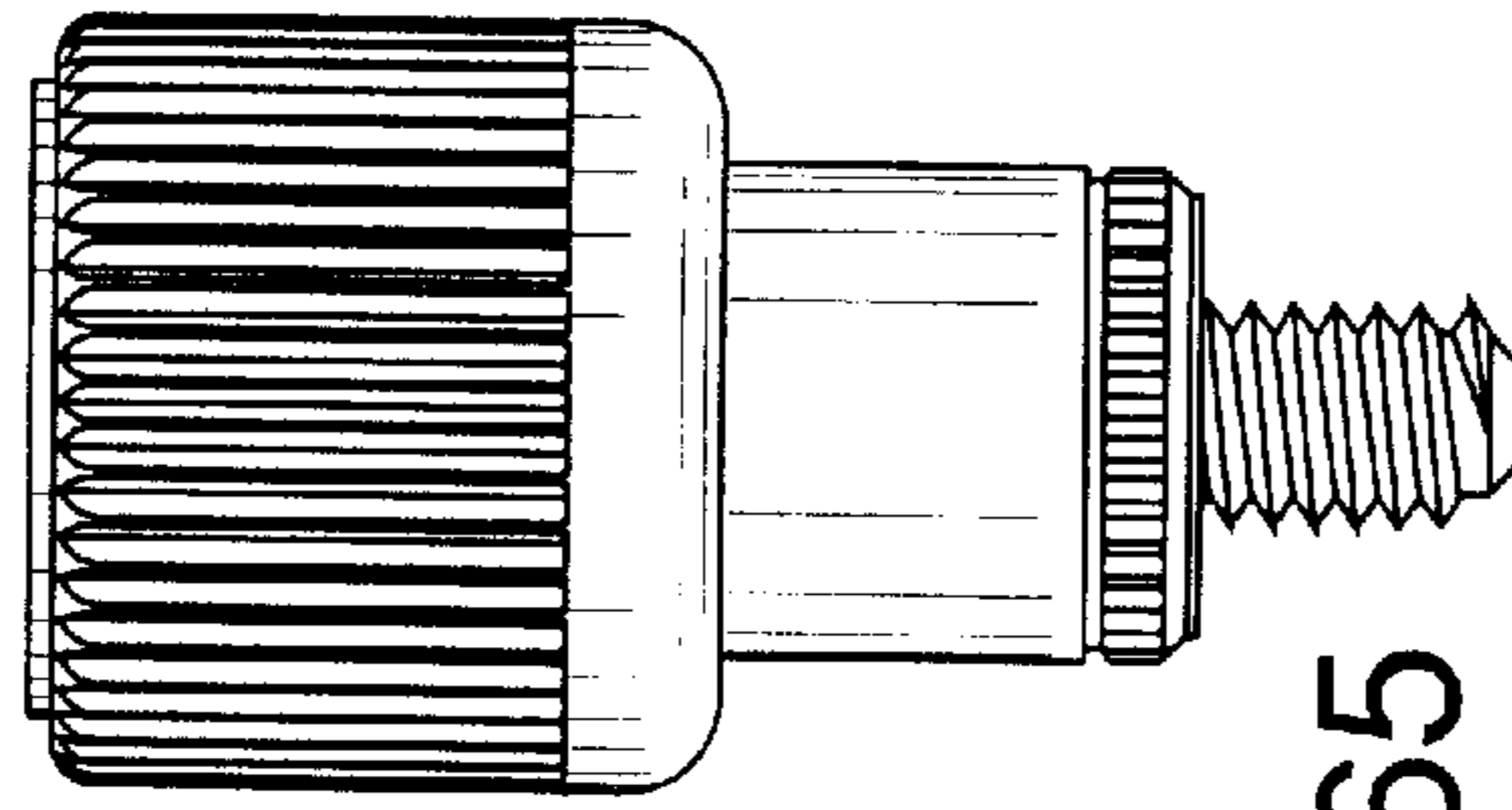


FIG. 65

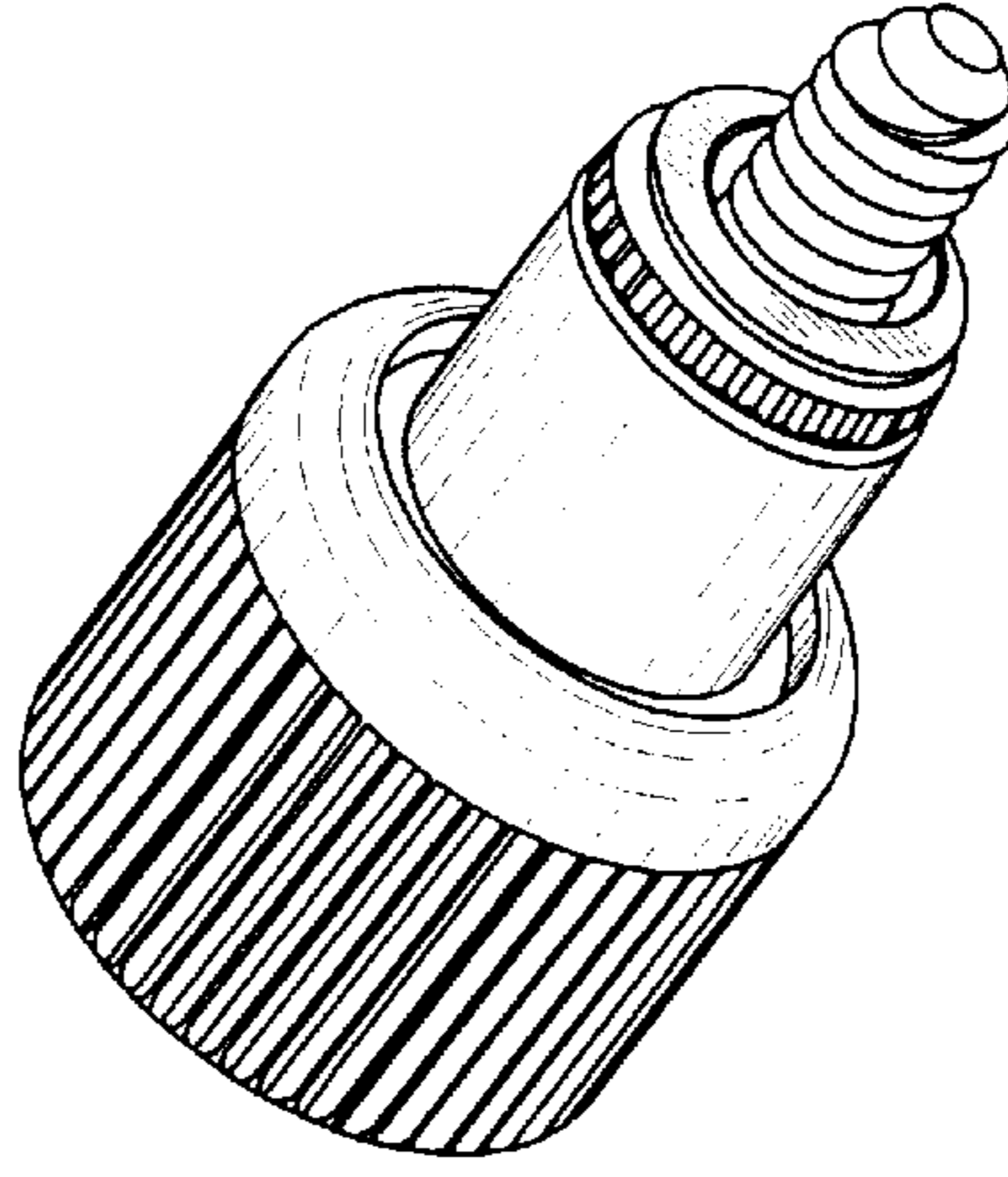


FIG. 66

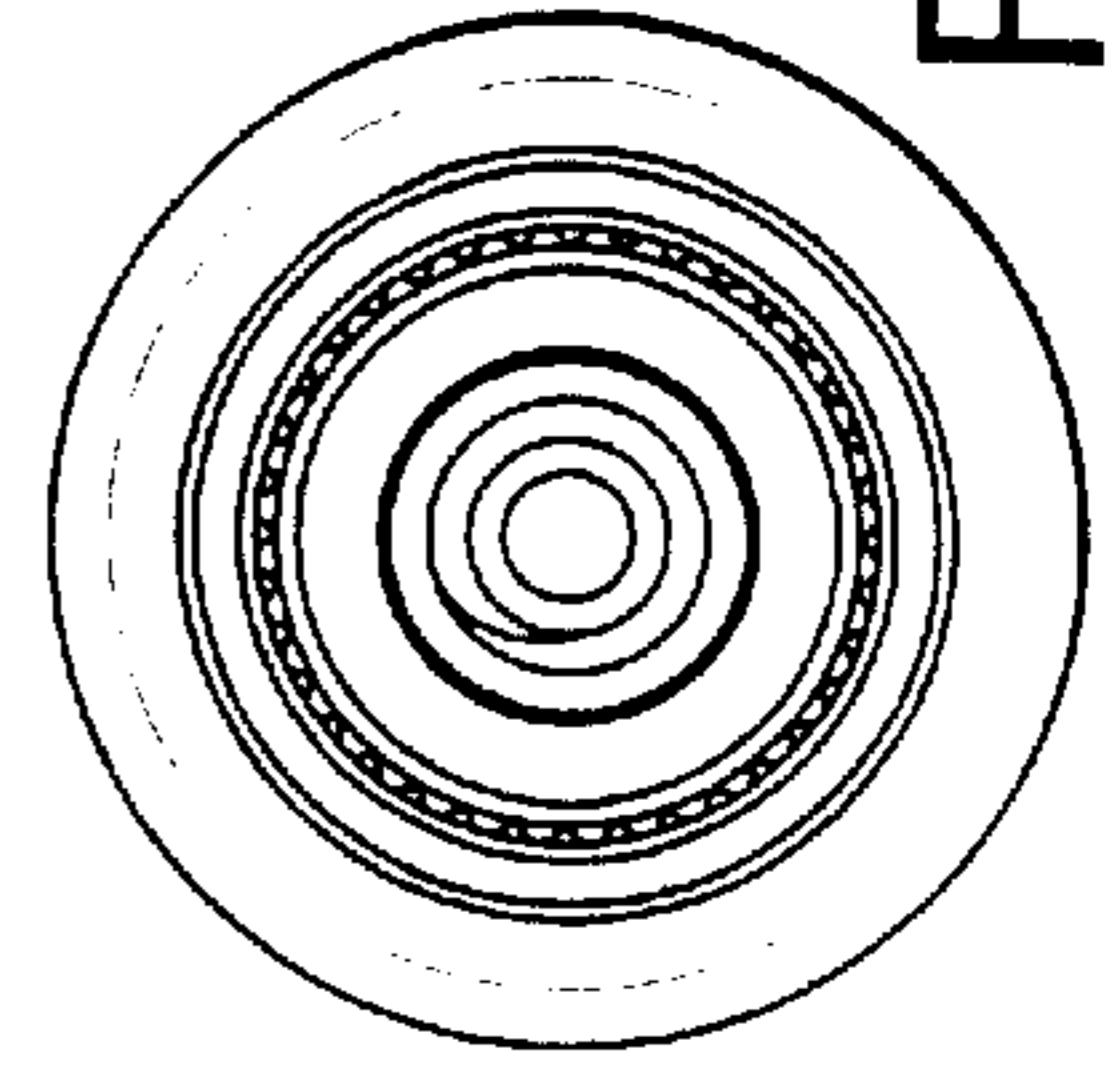


FIG. 67

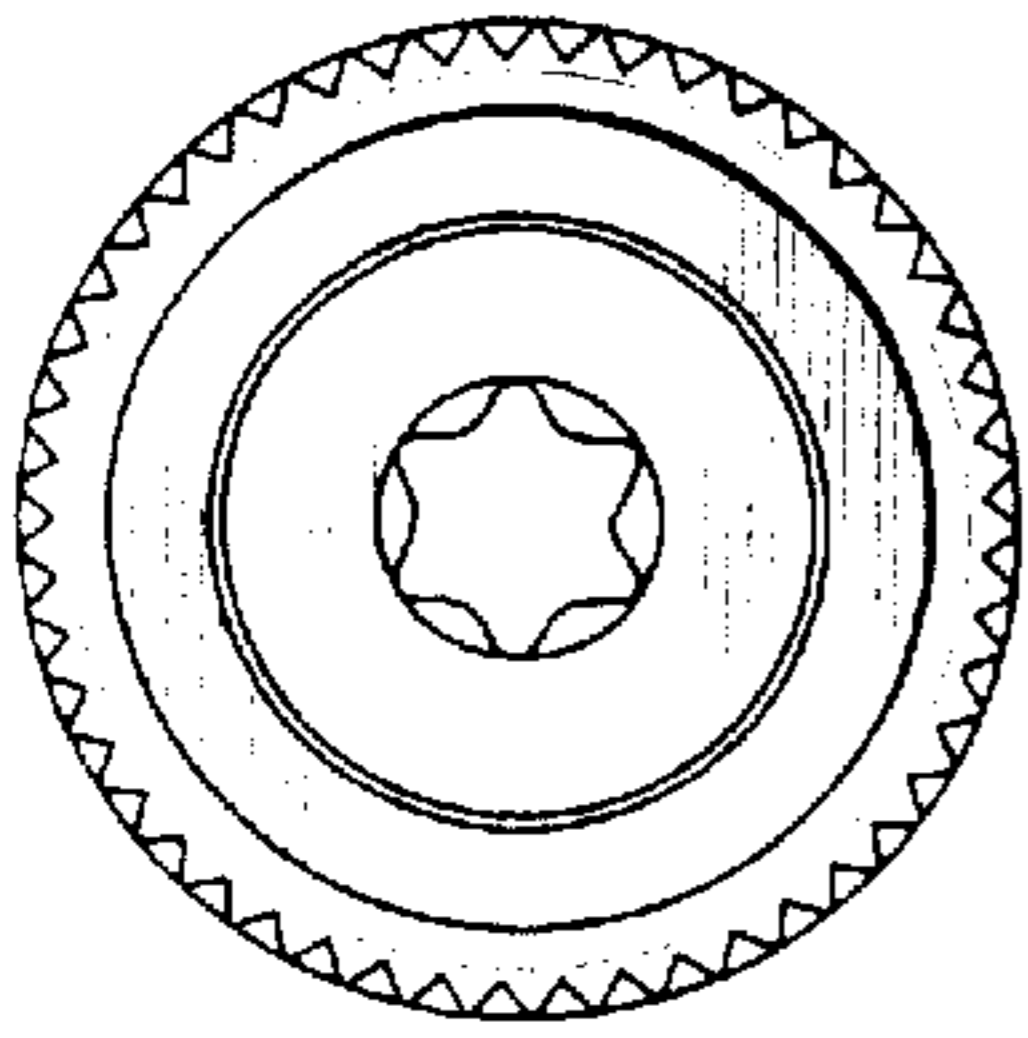


FIG. 76

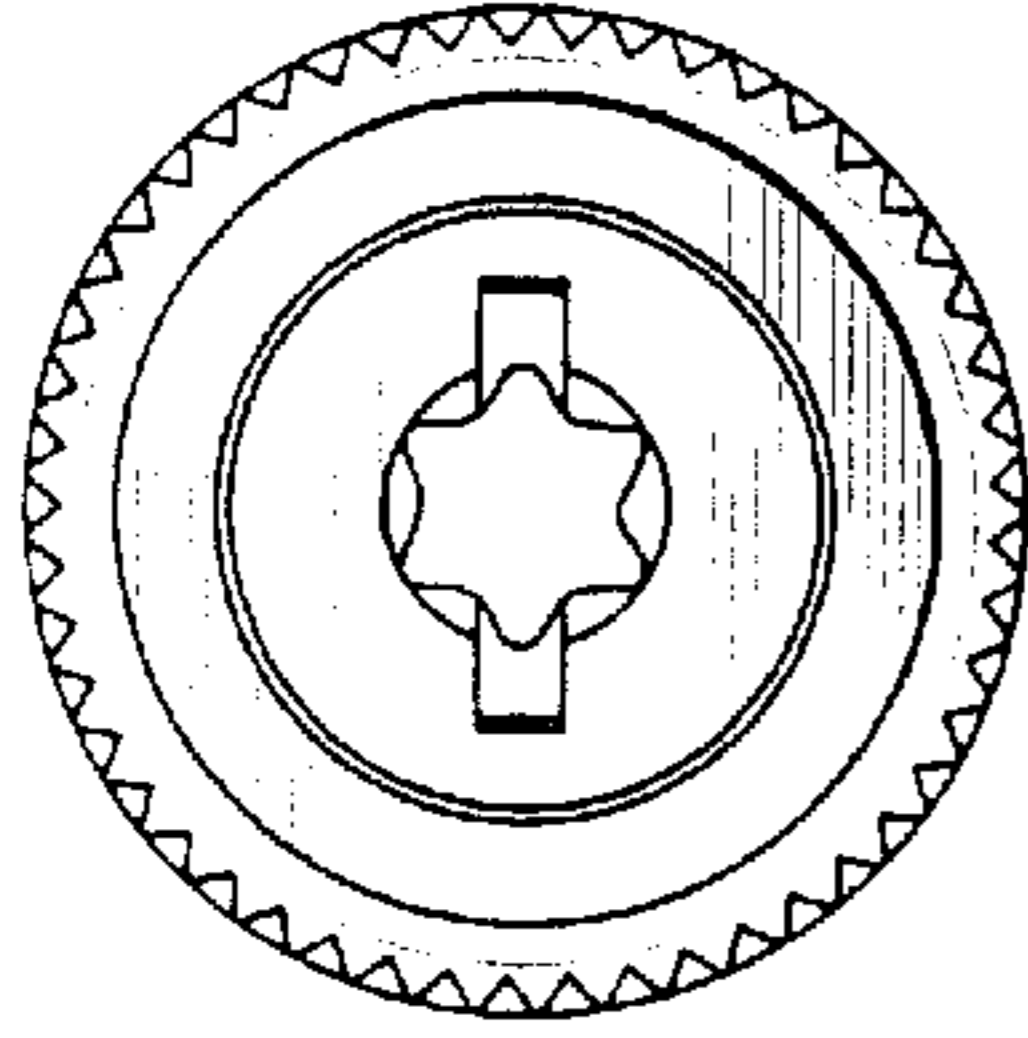


FIG. 77

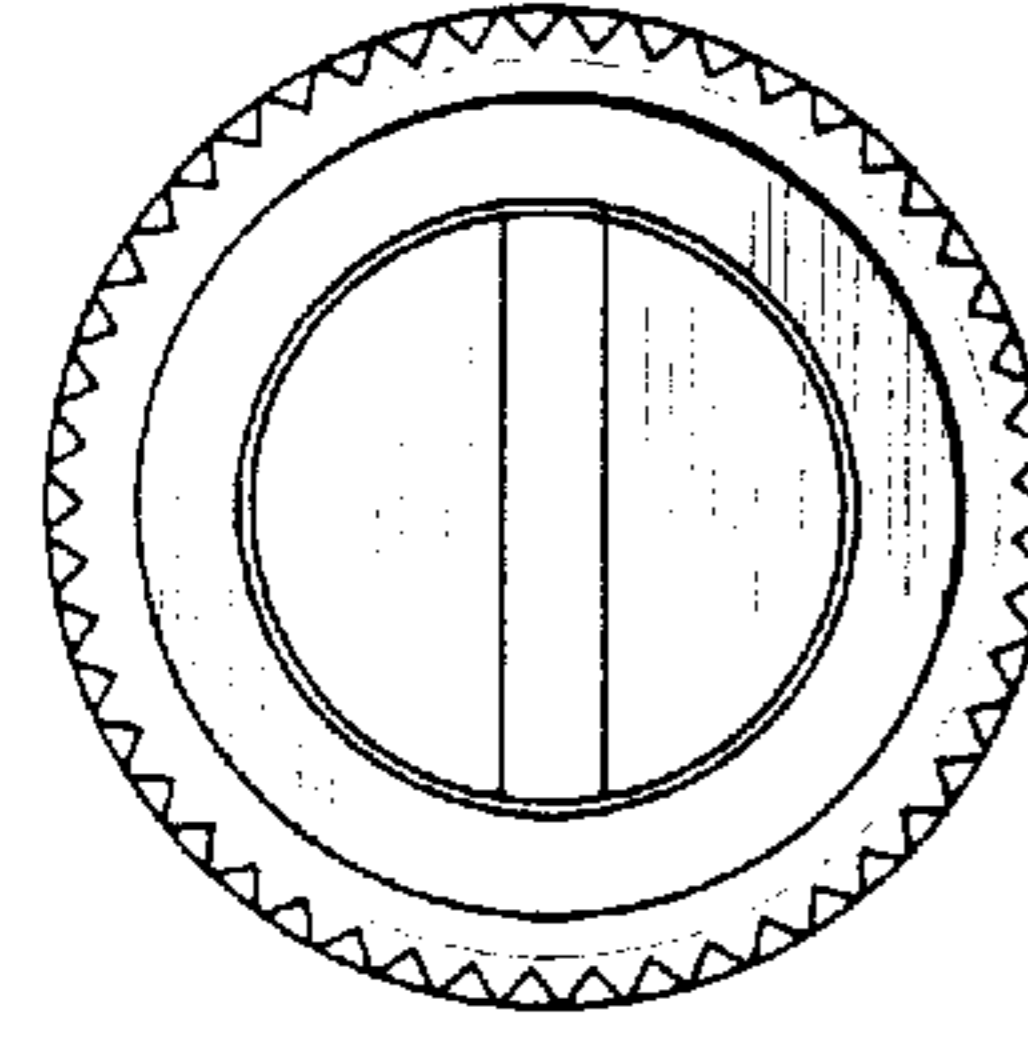


FIG. 78

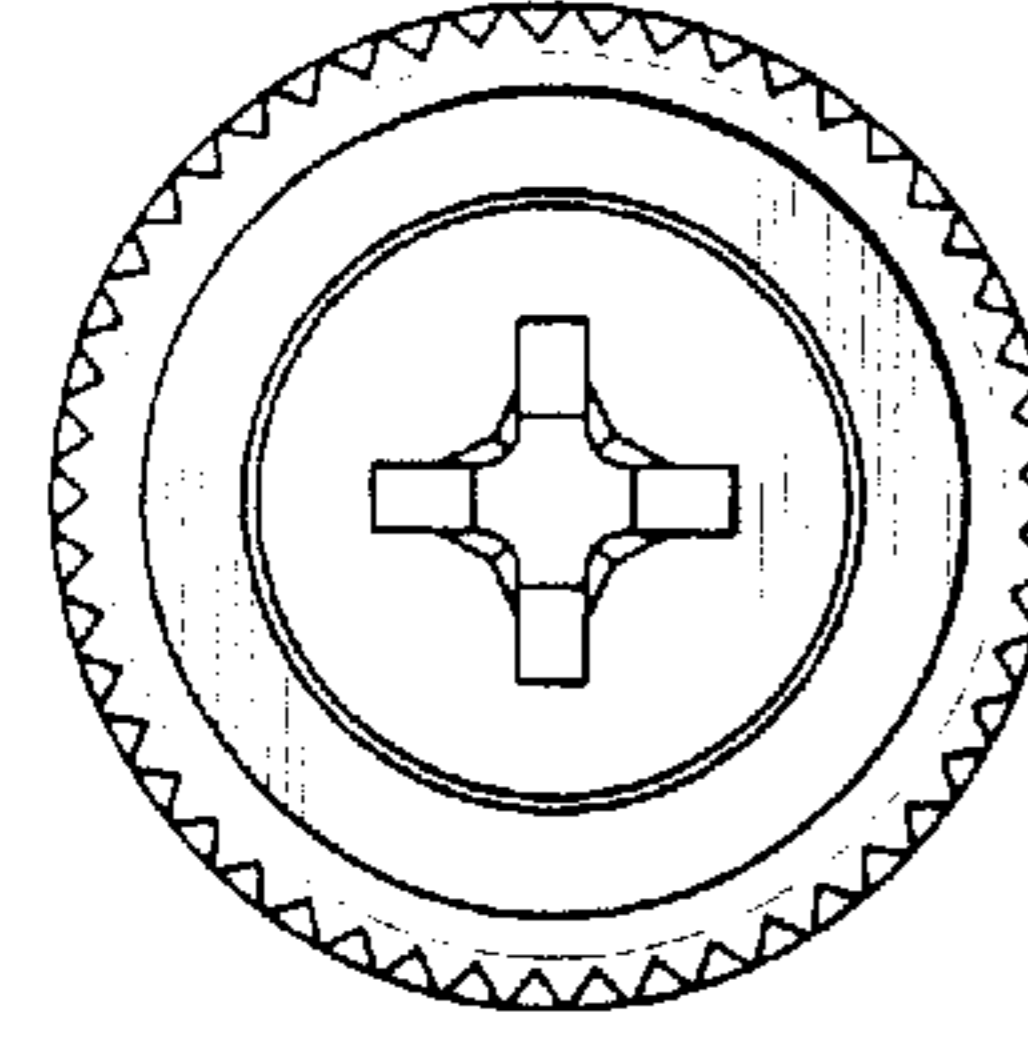


FIG. 79

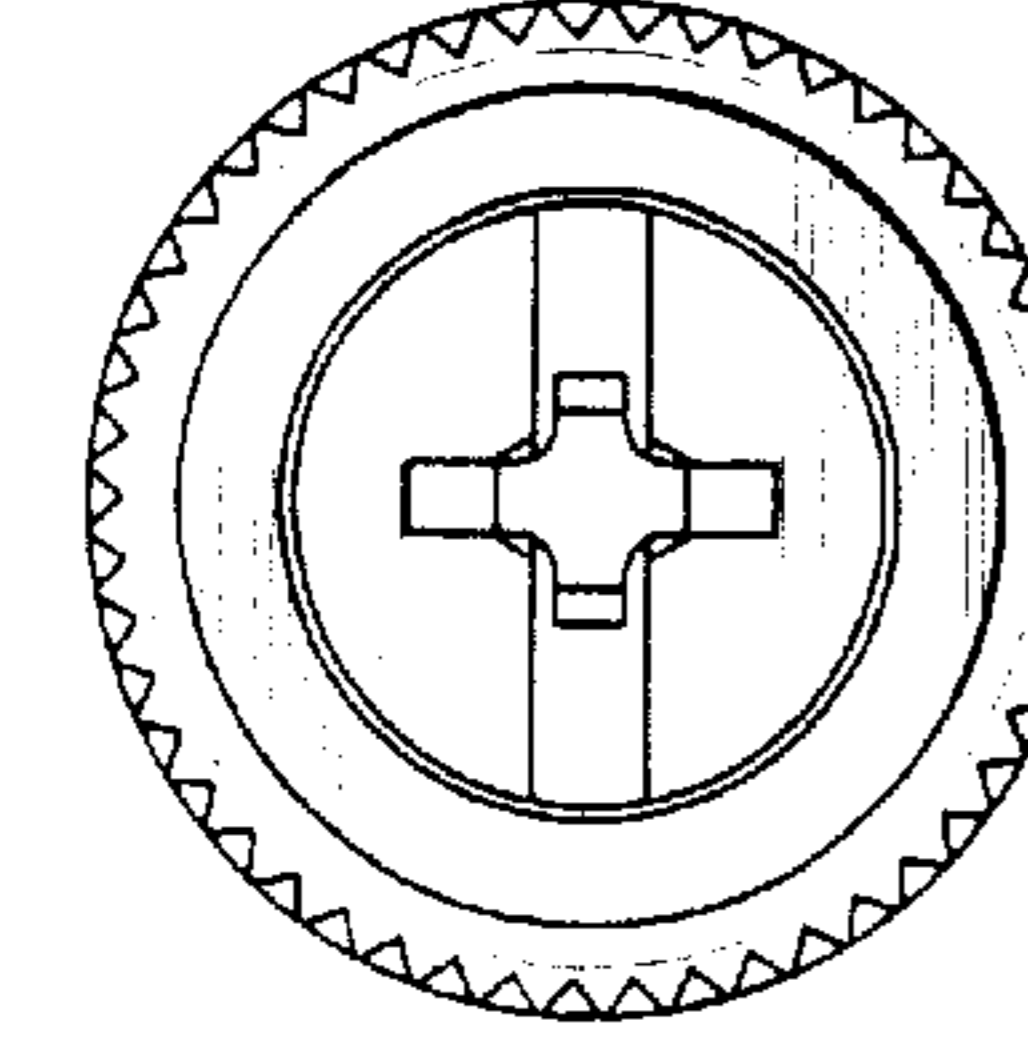


FIG. 80

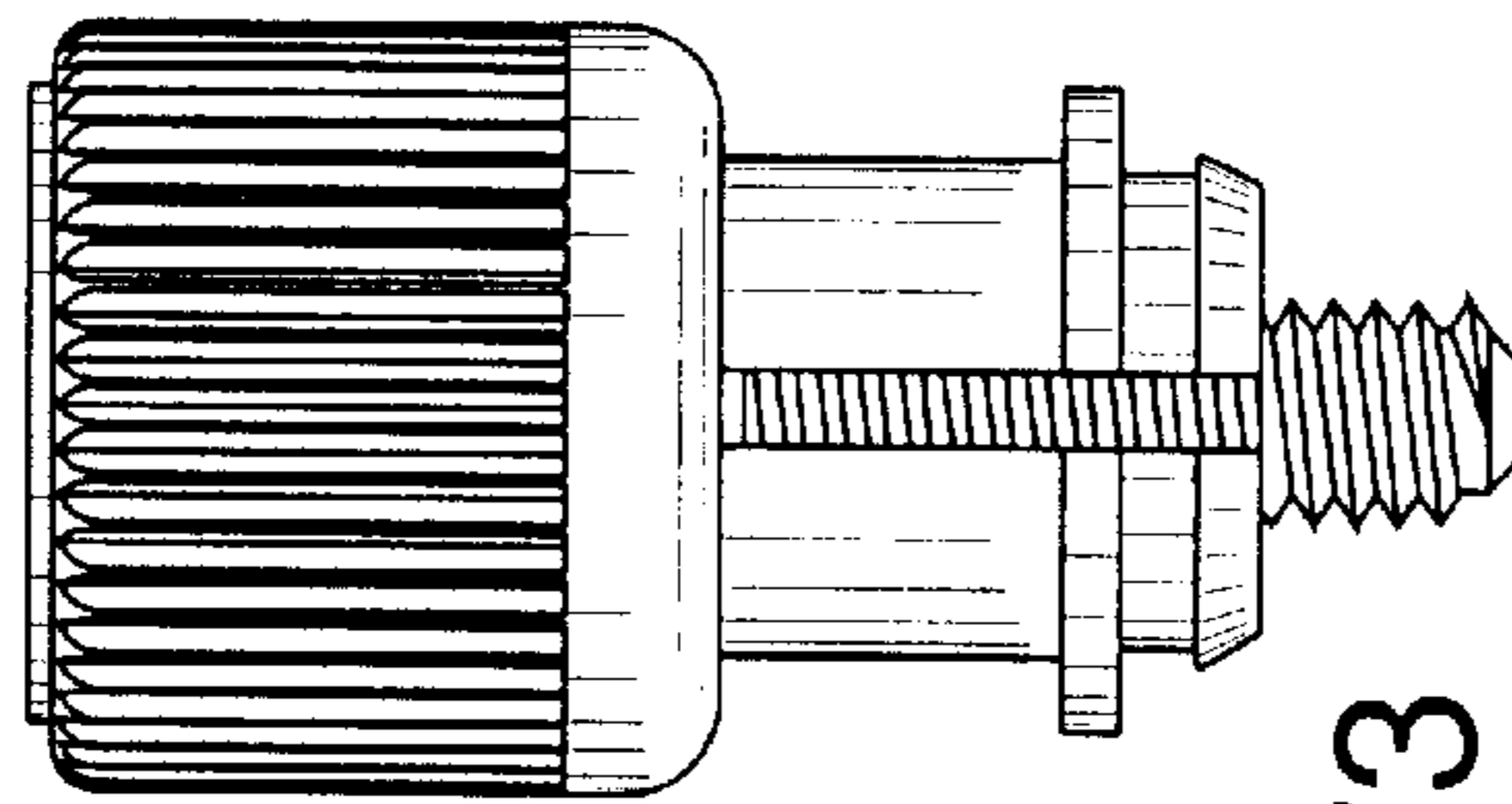


FIG. 73

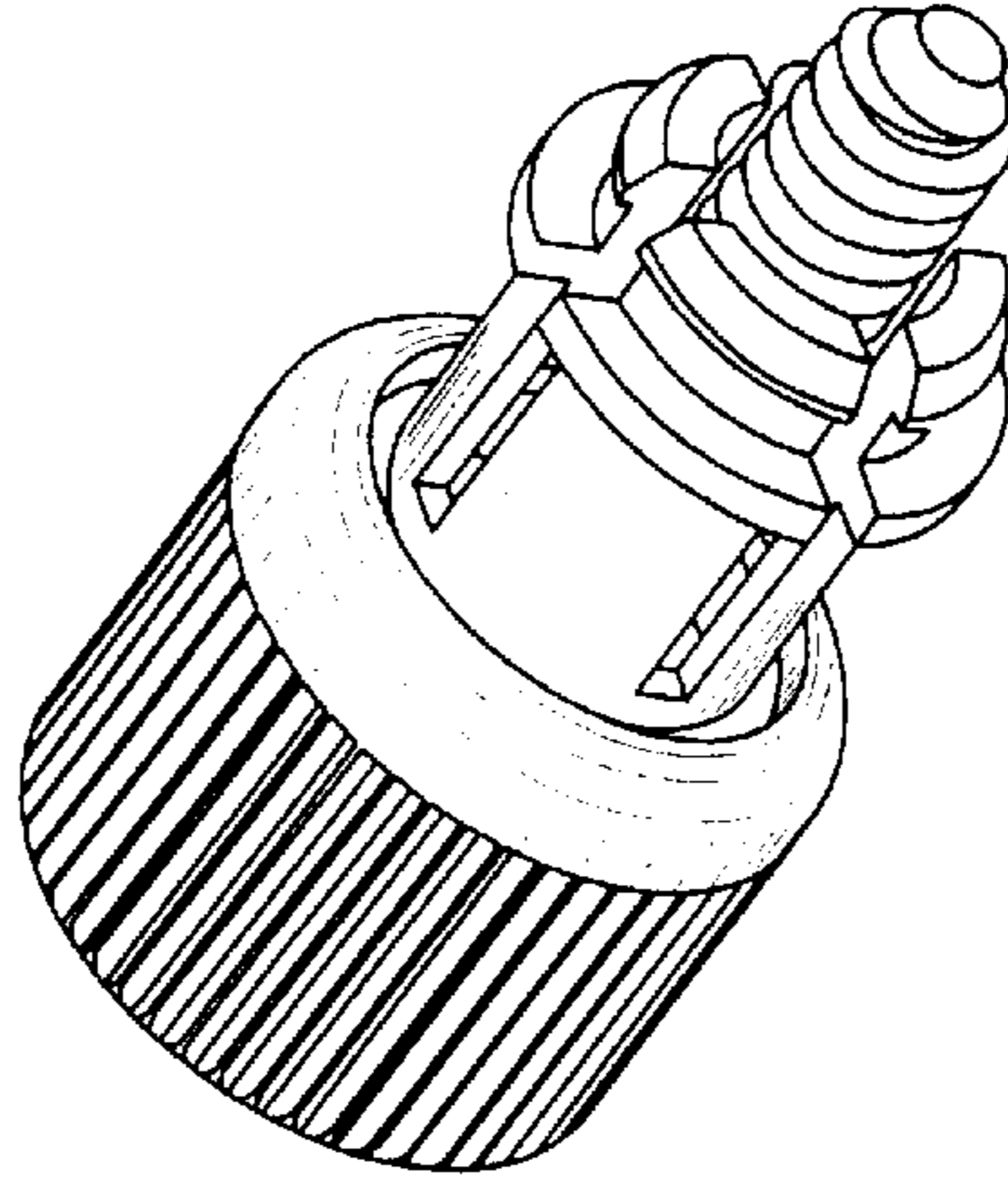


FIG. 74

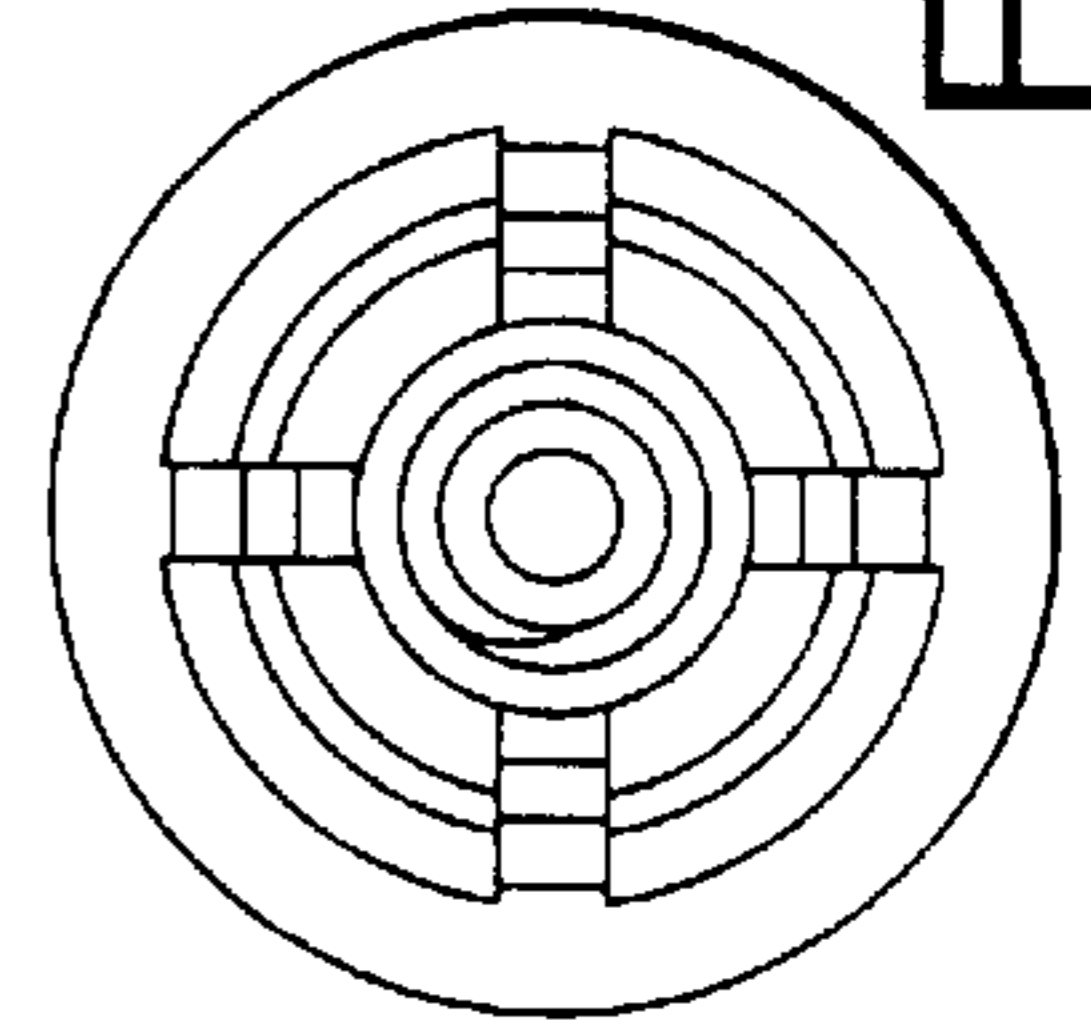


FIG. 75

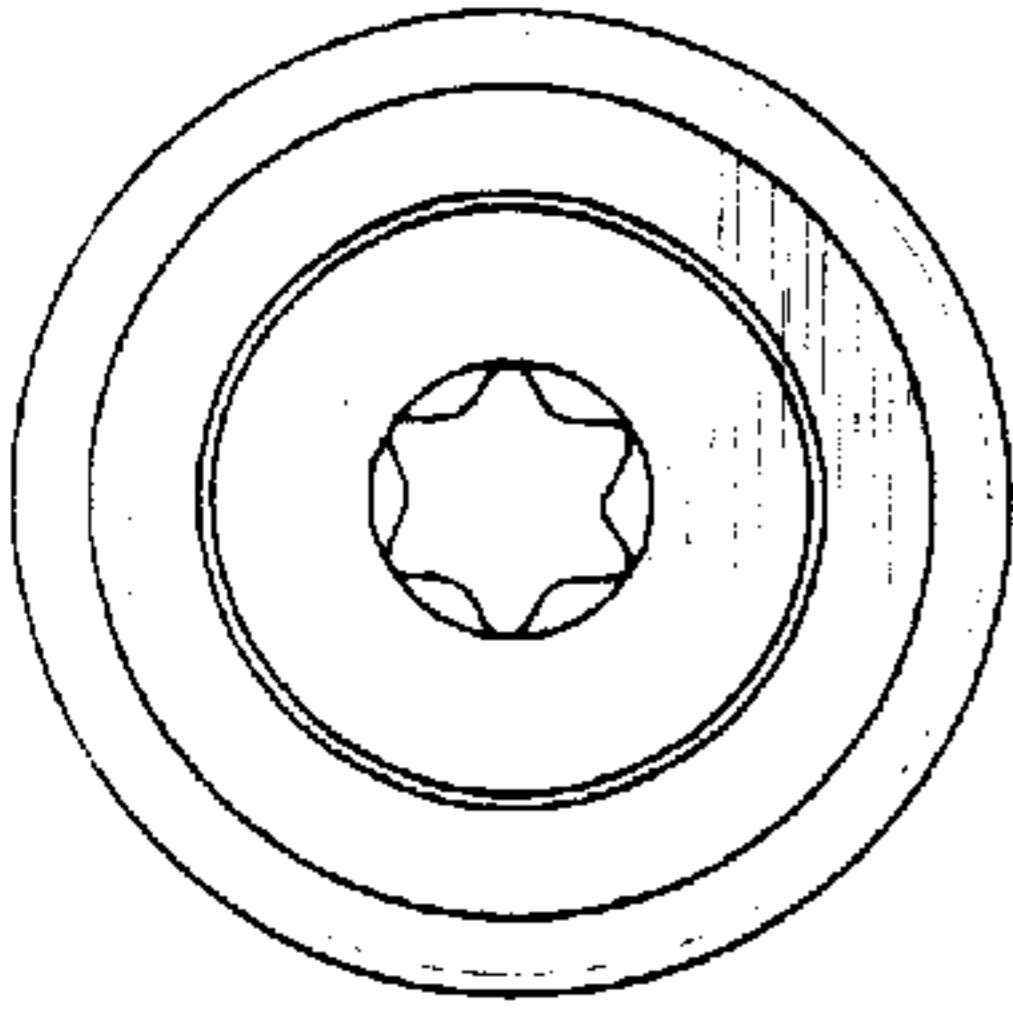


FIG. 84

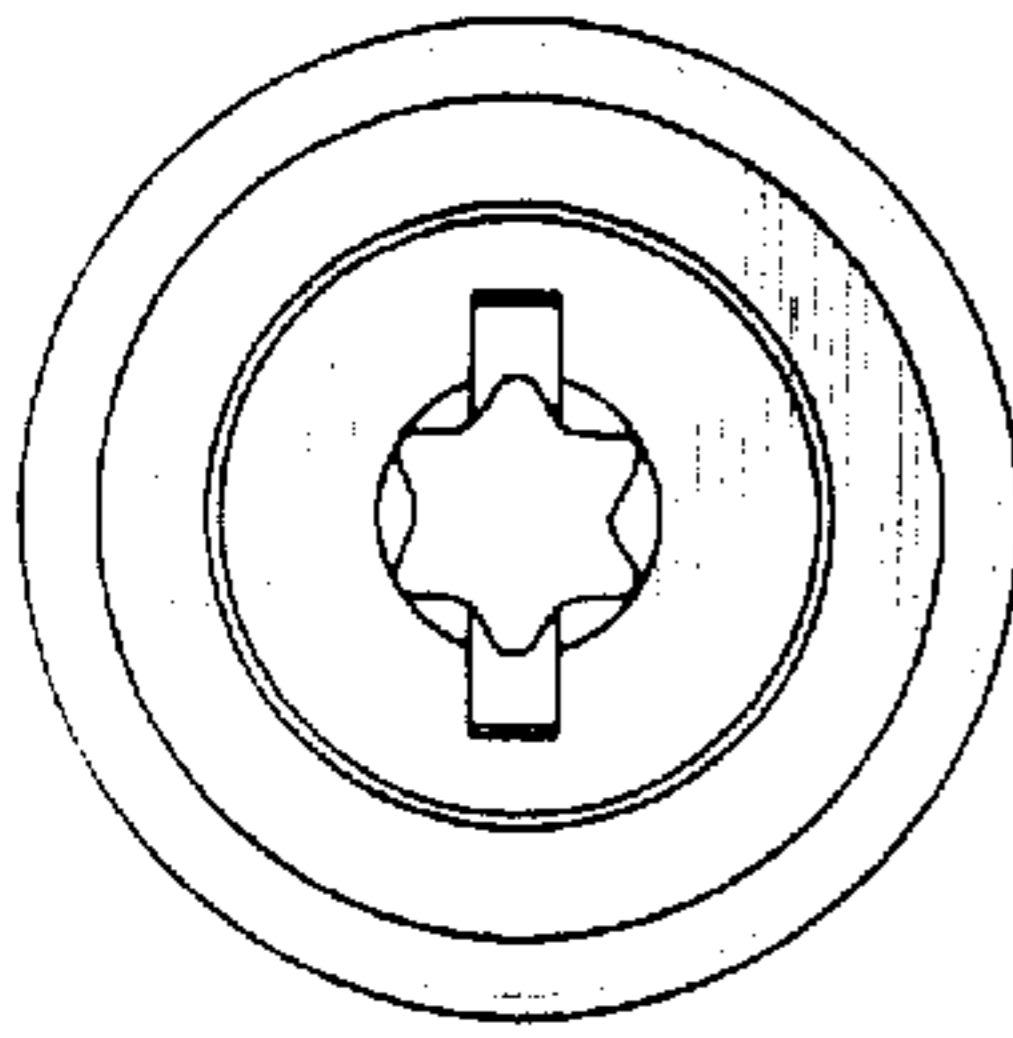


FIG. 85

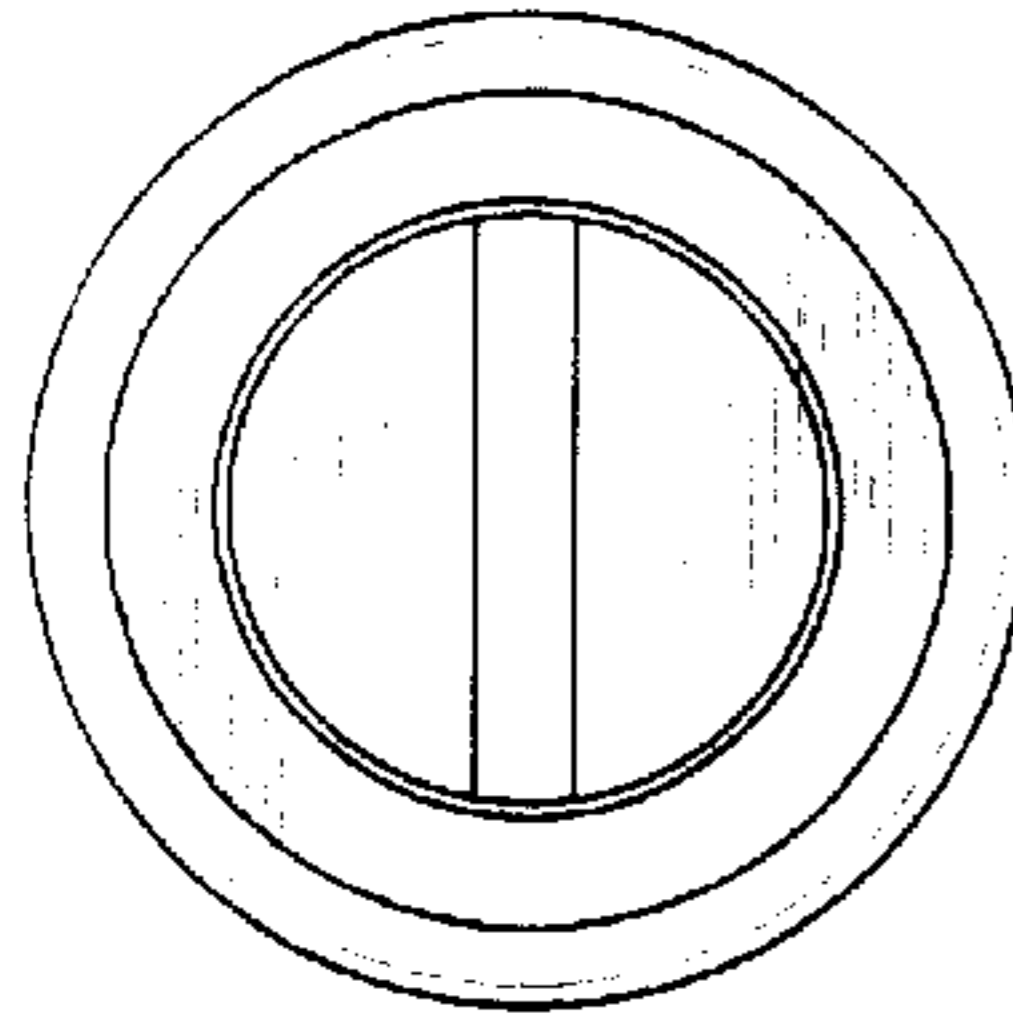


FIG. 86

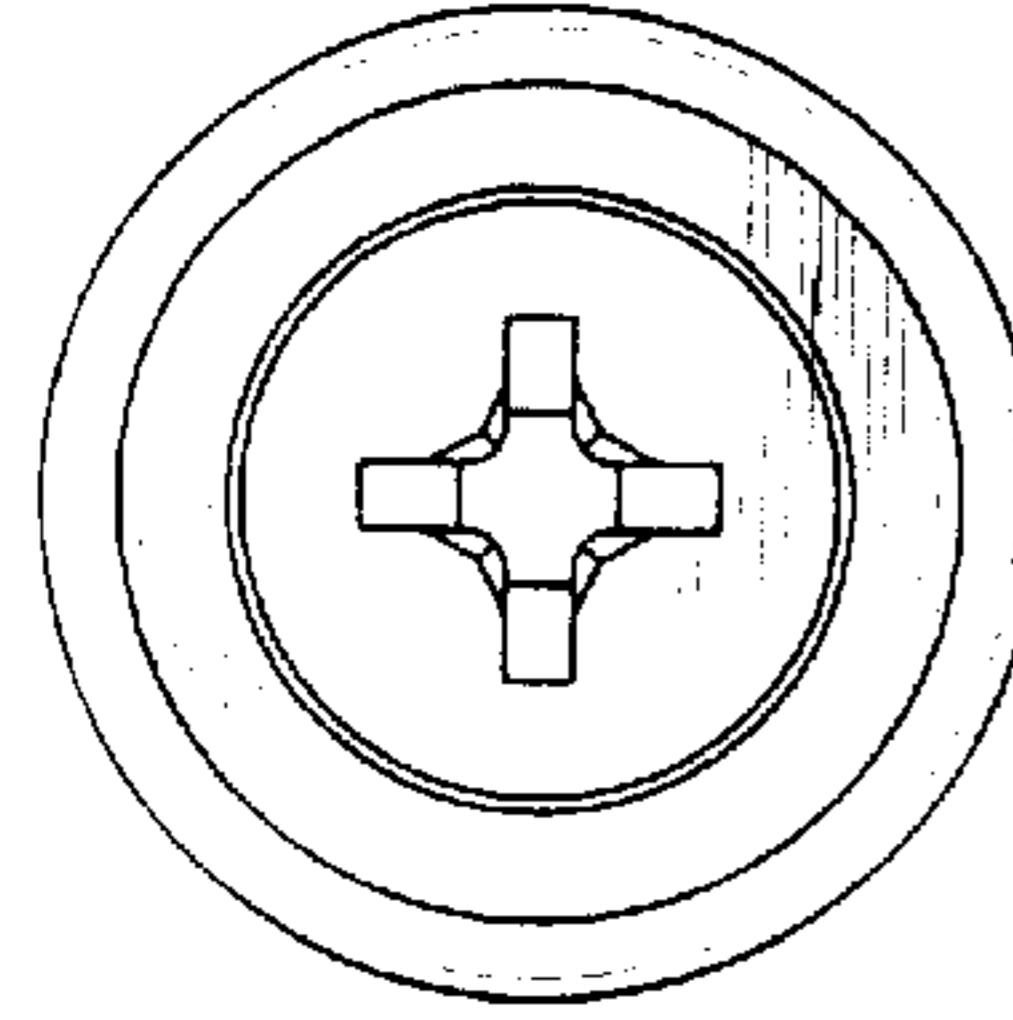


FIG. 87

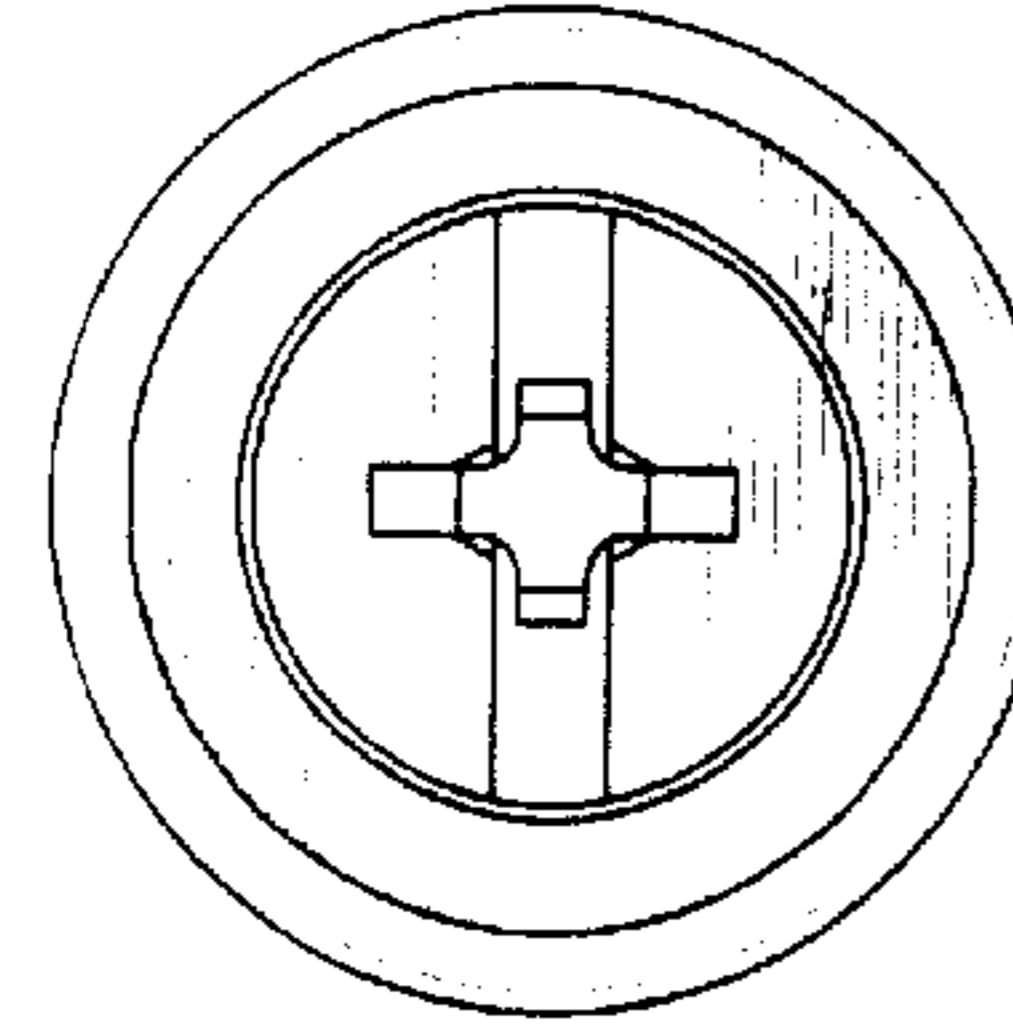


FIG. 88

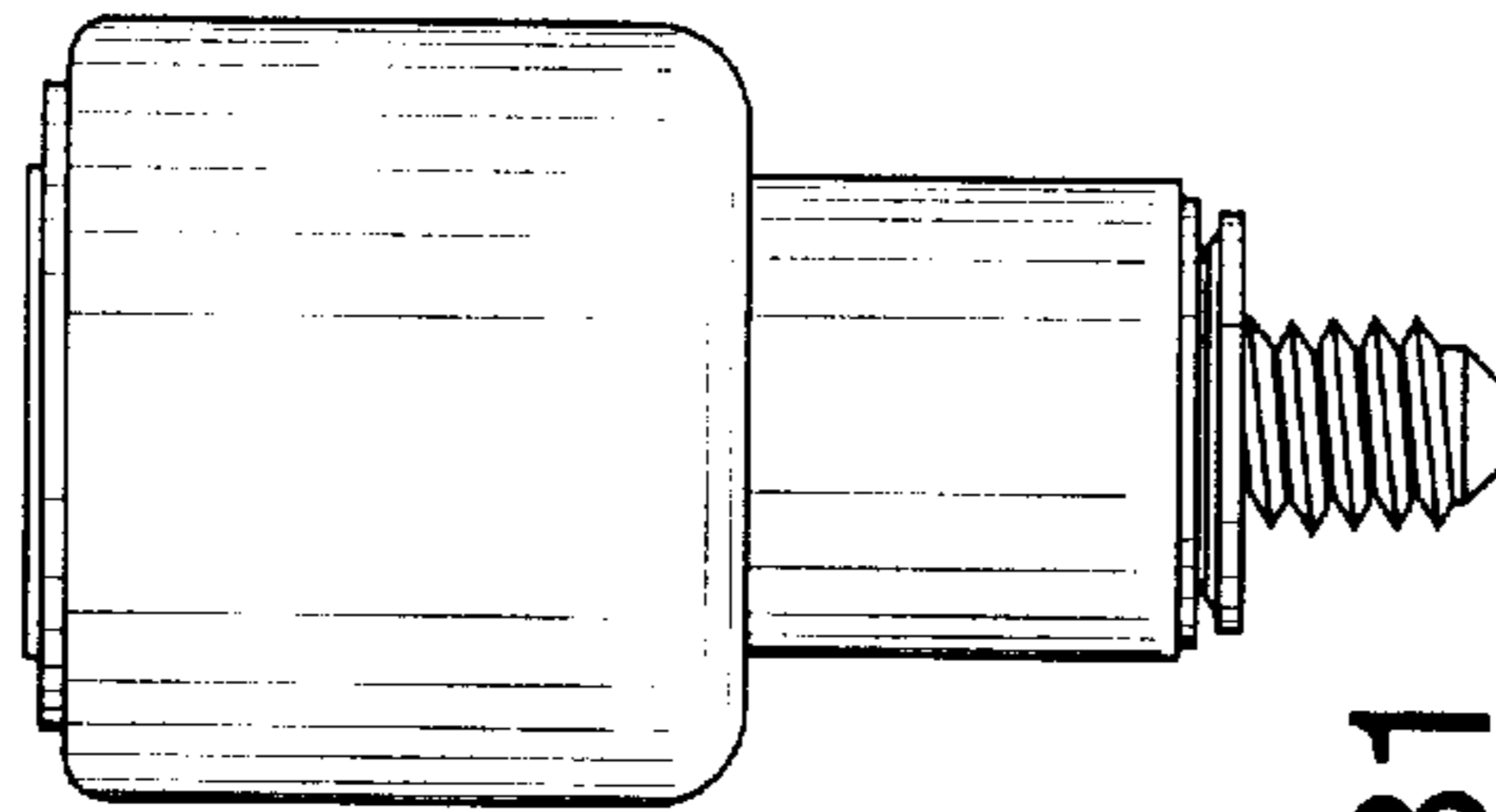


FIG. 81

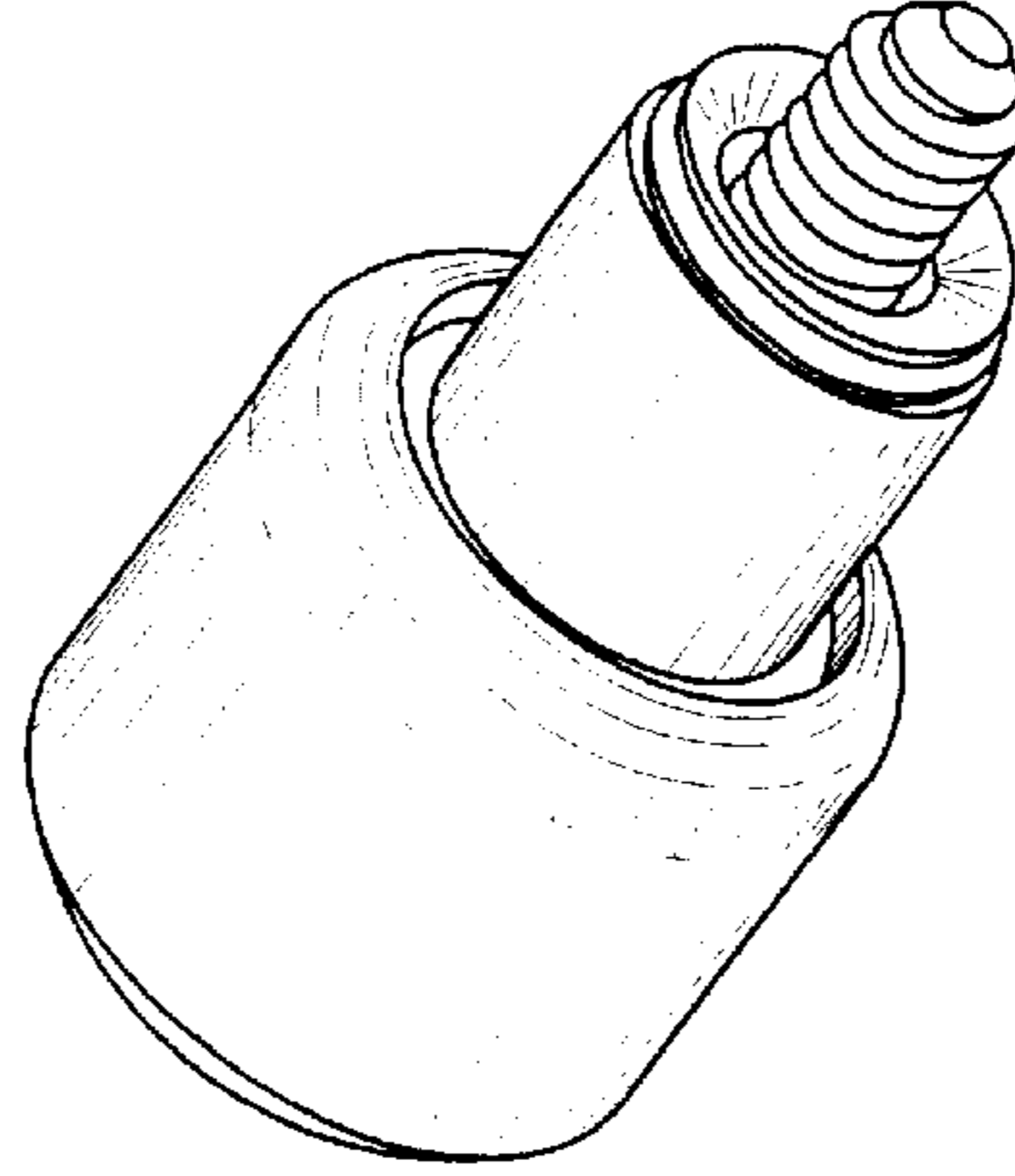


FIG. 82

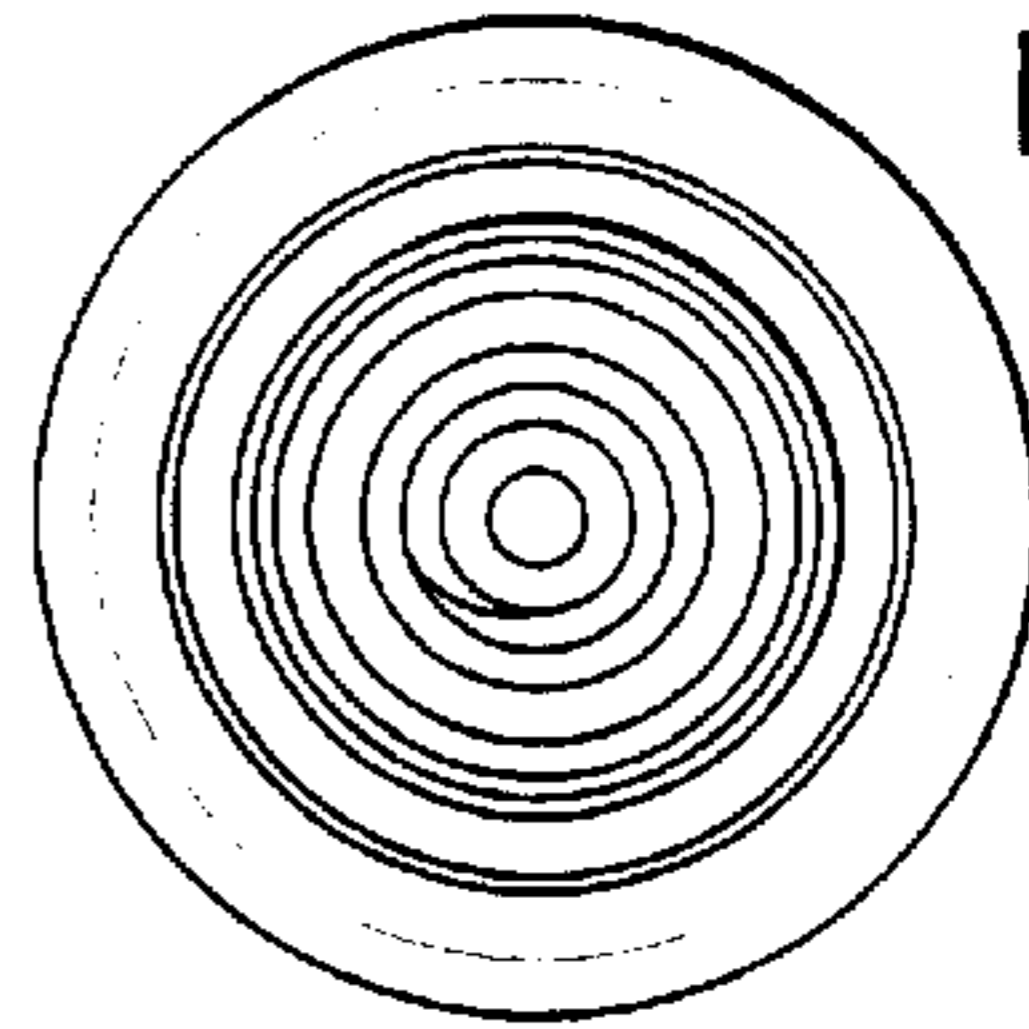


FIG. 83