



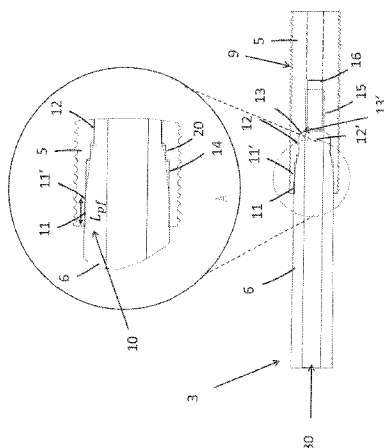
## (12) Patent specification

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|                       |                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| (54) Title:           | Anchoring system for attaching a prosthesis to a human body                                                                                                    |
| (56) Cited documents: | ---                                                                                                                                                            |
| (57) Abstract:        |                                                                                                                                                                |

The present invention relates to an anchoring system for attaching a prosthesis to a human body, comprising: an anchoring element (5), an abutment (6), an abutment screw (7) for attaching the abutment to the anchoring element, the anchoring element comprises a connection area (10) for the abutment, the connection area comprising a press-fit portion (11, 21) such that the abutment is attached to the anchoring element in the connection area by a press-fit connection, wherein the connection area comprises an anti-rotation geometry (12) and the abutment comprising a corresponding mating anti-rotation geometry (12') proximal to the press-fit portion, and wherein the connection area comprises a conical portion (13, 27) proximal to the anti-rotational geometry forming a mating geometry for a corresponding conical portion (13') in the through-hole of the abutment.



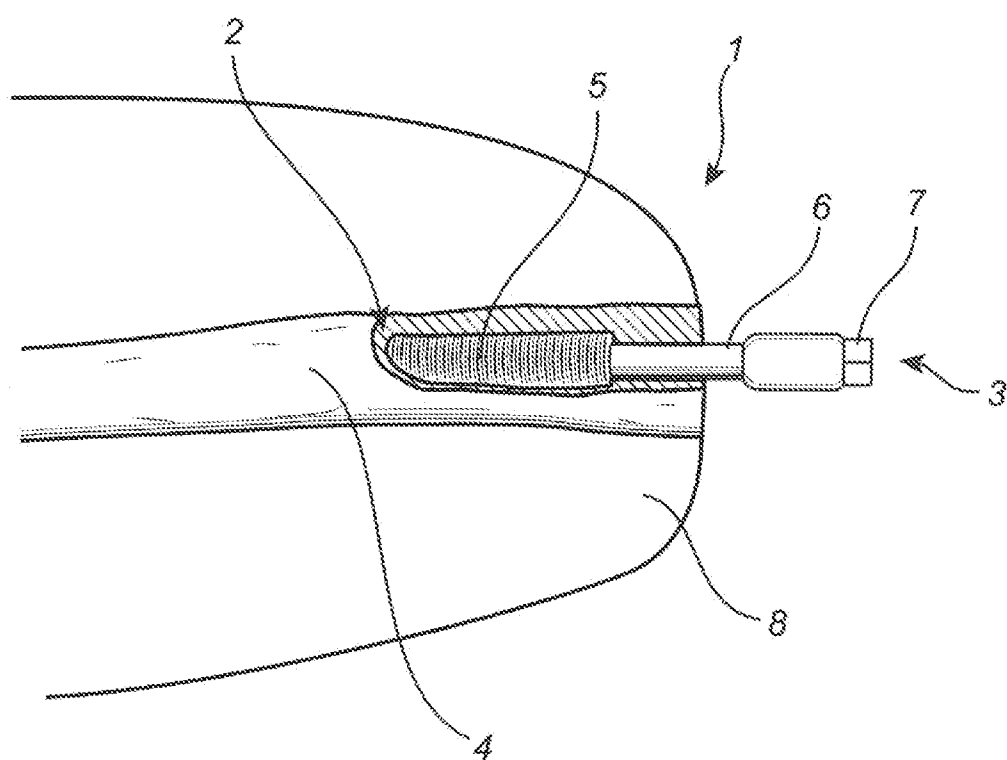


Fig. 1

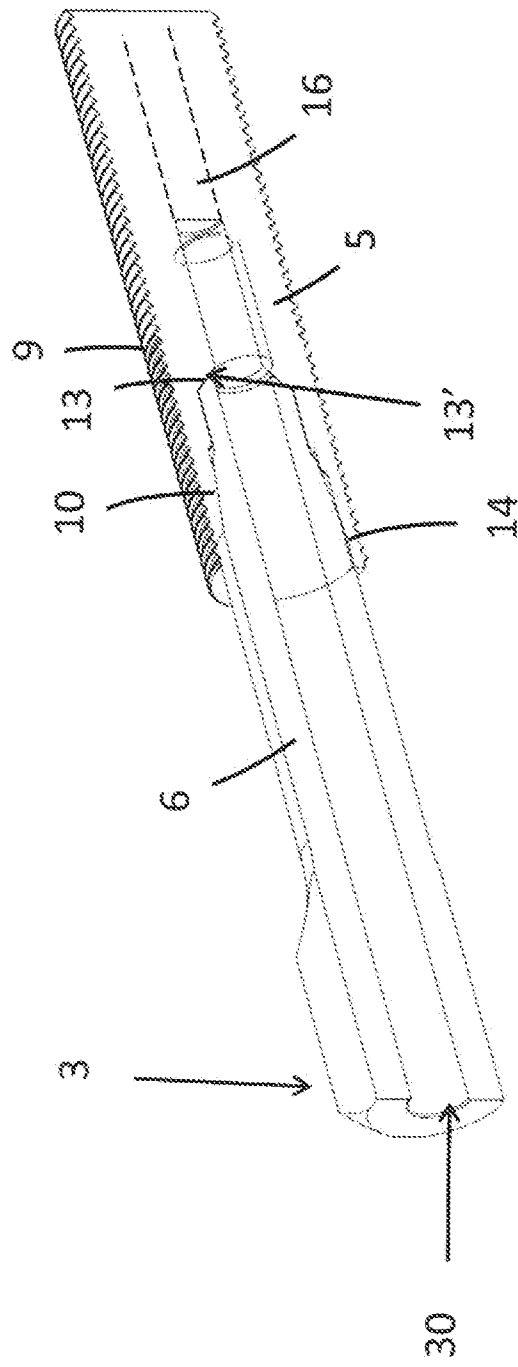


Fig. 2

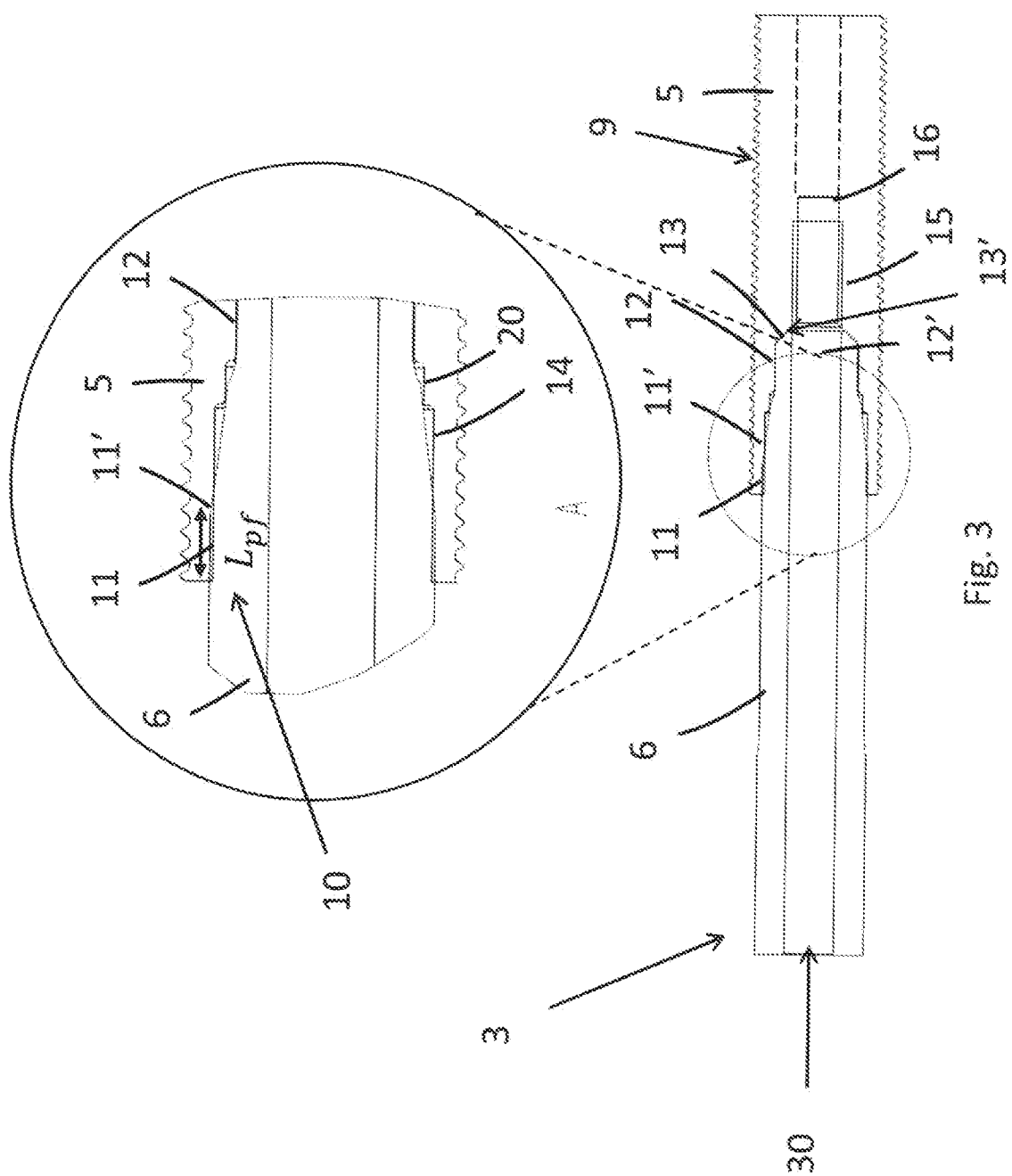


Fig. 3

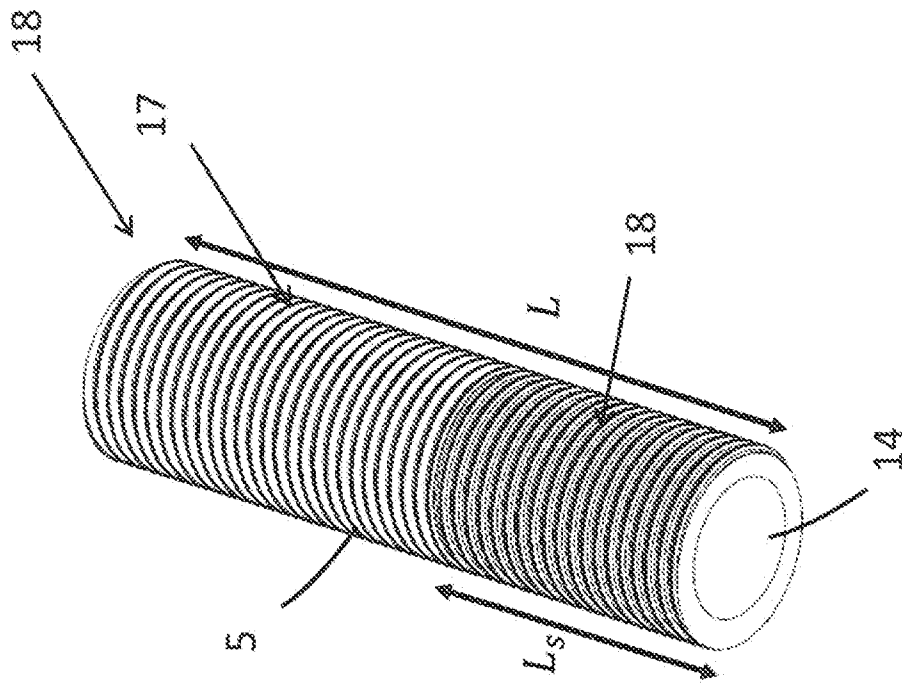


Fig. 4

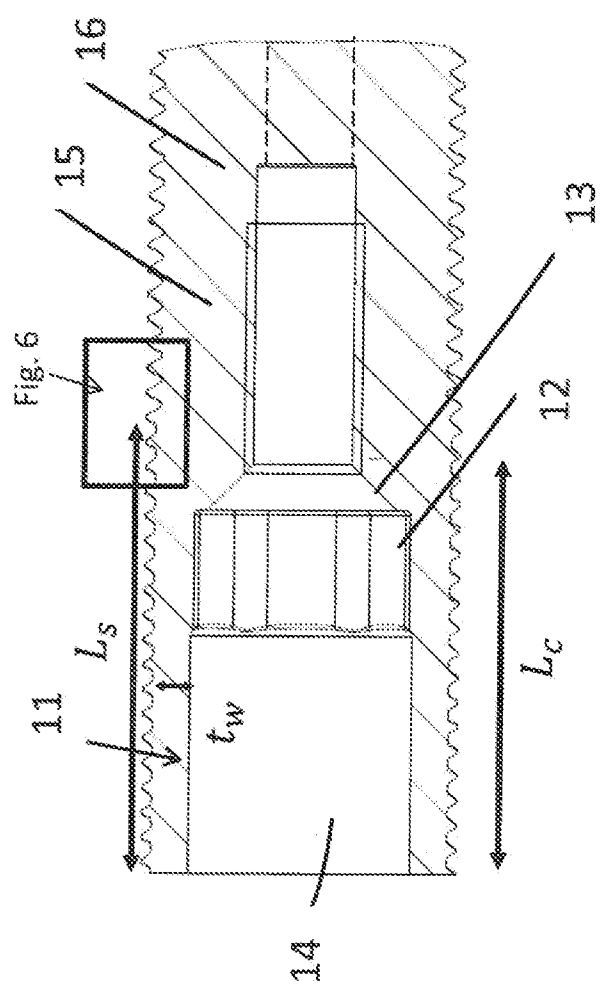


Fig. 5

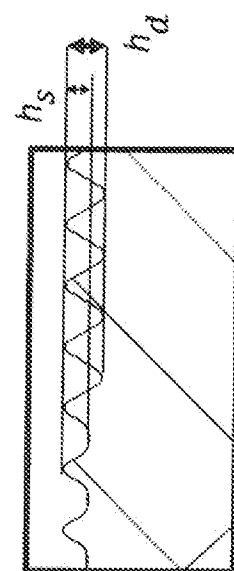


Fig. 6

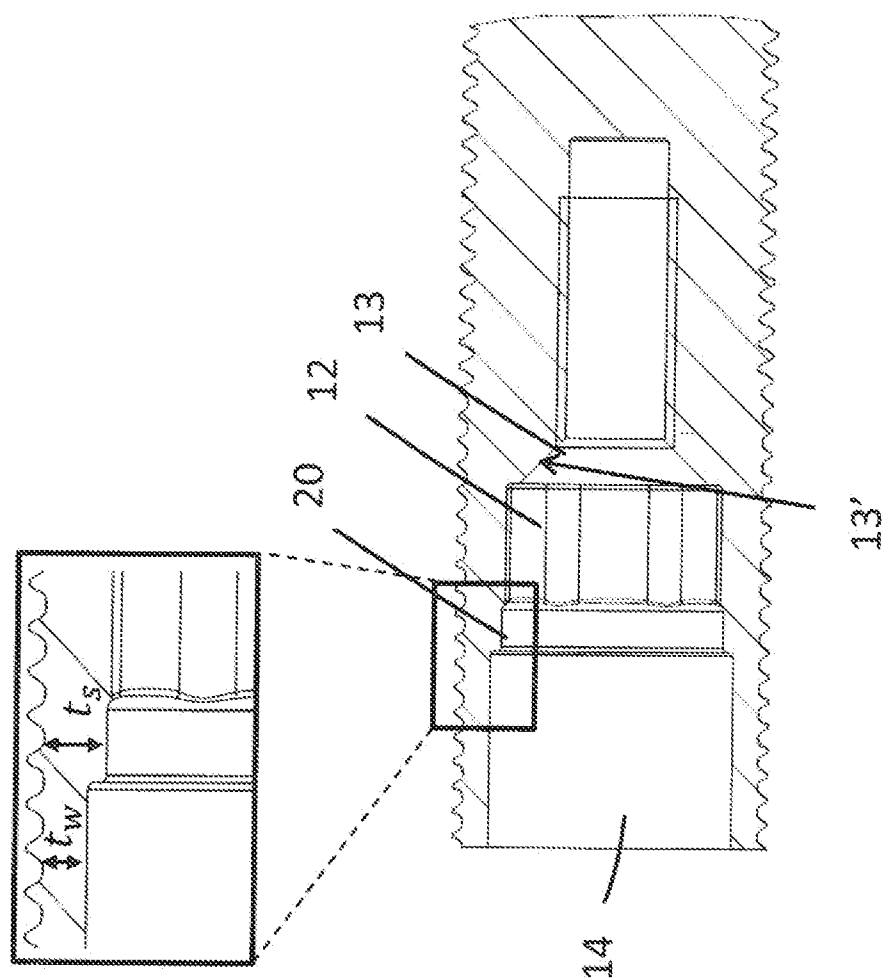


Fig. 7

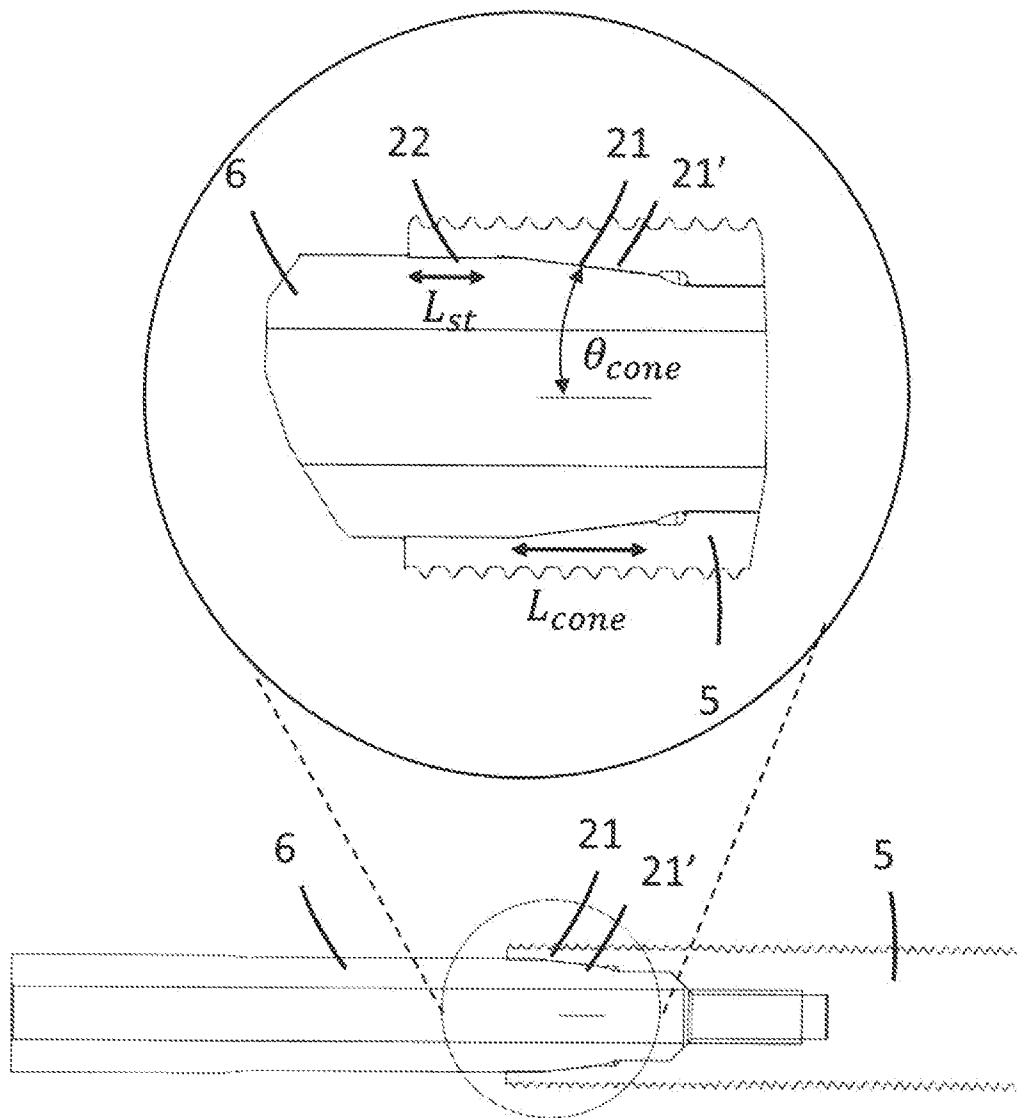


Fig. 8

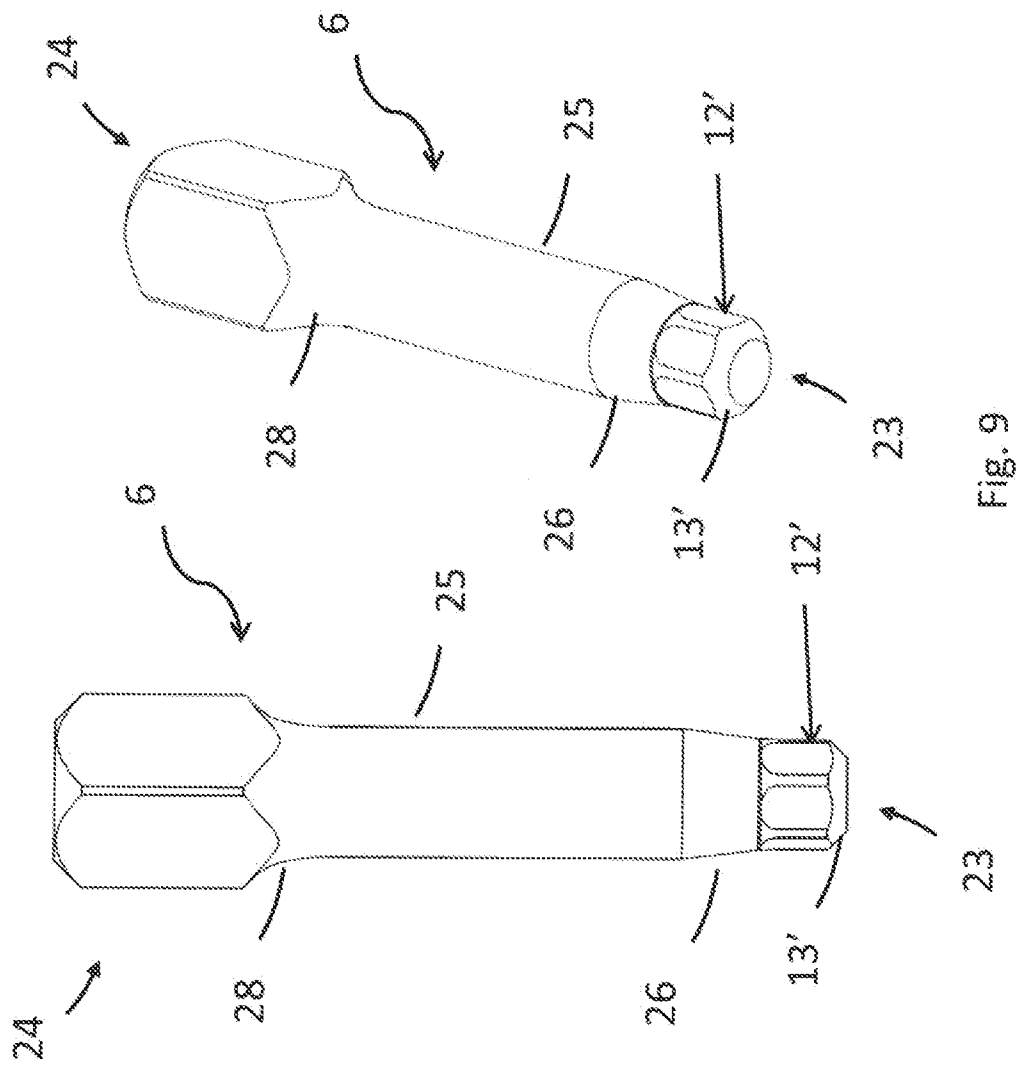


Fig. 9

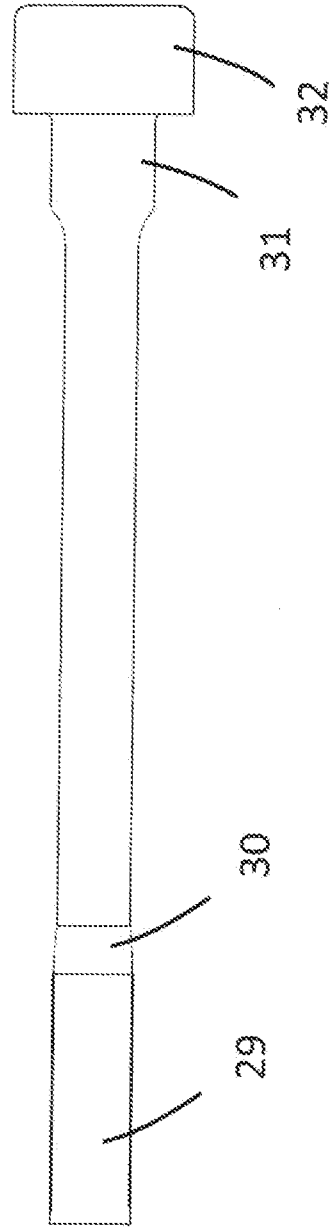


Fig. 10

| Dimension                                                  | Symbol          | Interval                       |
|------------------------------------------------------------|-----------------|--------------------------------|
| Length of shallow thread                                   | $L_s$           | $> 0.5L$                       |
| Difference in thread depth between deep and shallow thread | $\Delta h$      | $[0.1h_d - 0.9h_d]$ or $> h_d$ |
| Length of press-fit                                        | $L_{pf}$        | $[2 - 15] \text{ mm}$          |
| Increased wall thickness                                   | $t_s$           | $[1t_w - 2t_w]$                |
| Cone angle                                                 | $\theta_{cone}$ | $[0.2^\circ - 30^\circ]$       |
| Length of cone                                             | $L_{cone}$      | $\geq L_c$                     |
| Length of straight portion for stress-relief               | $L_{st}$        | $> L_{cone}$                   |

Table 1: Parameters intervals

Fig. 11