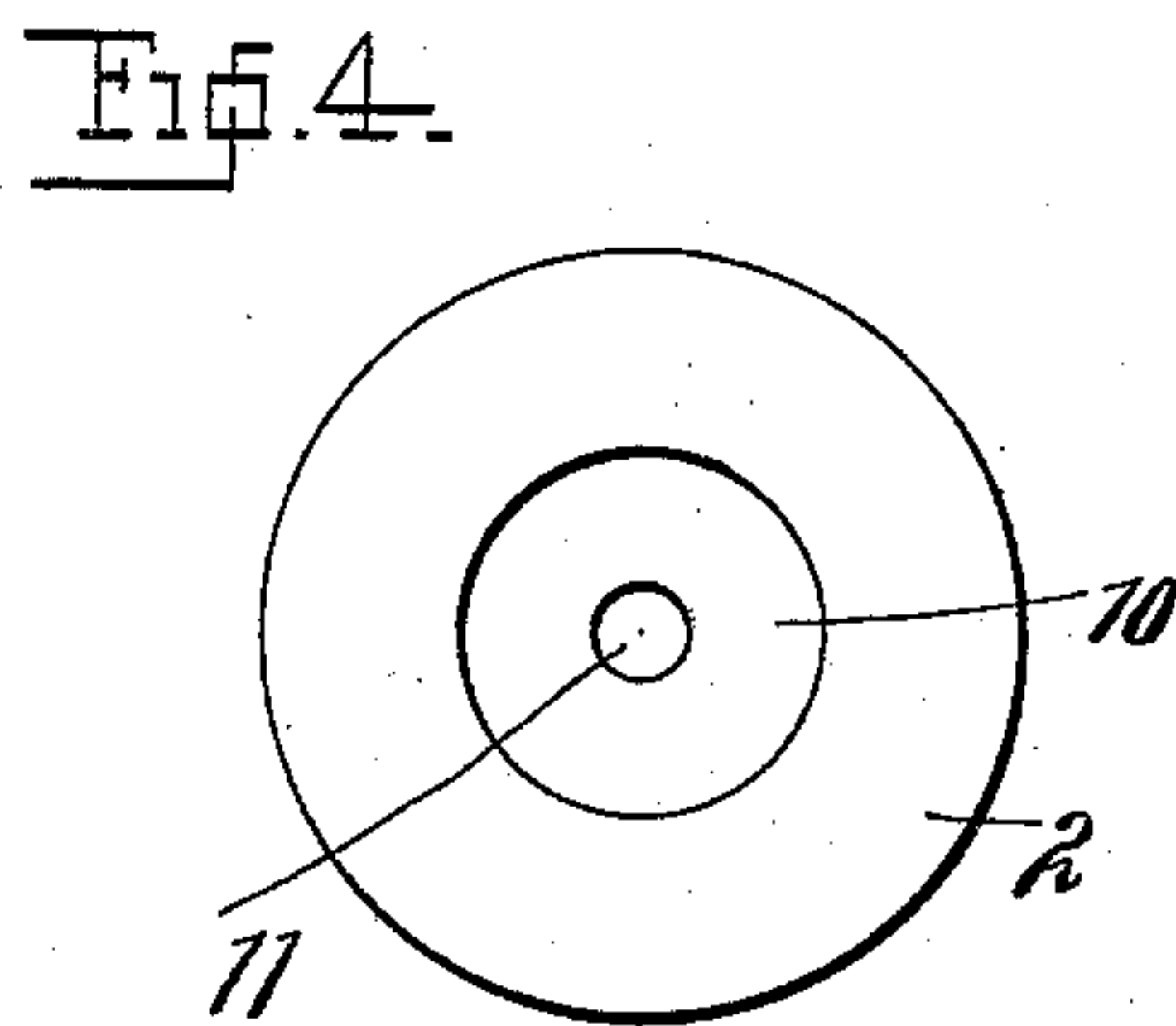
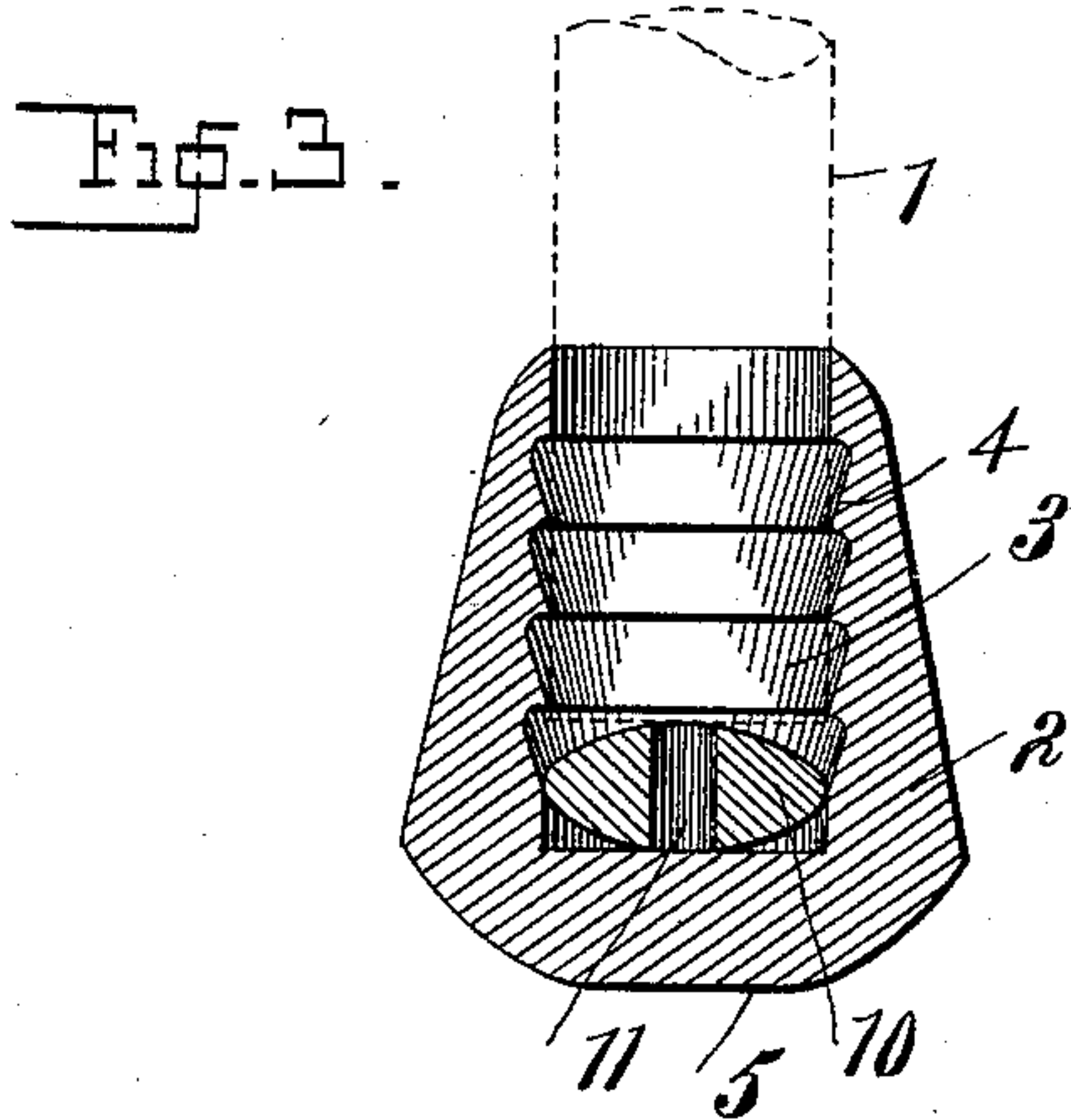
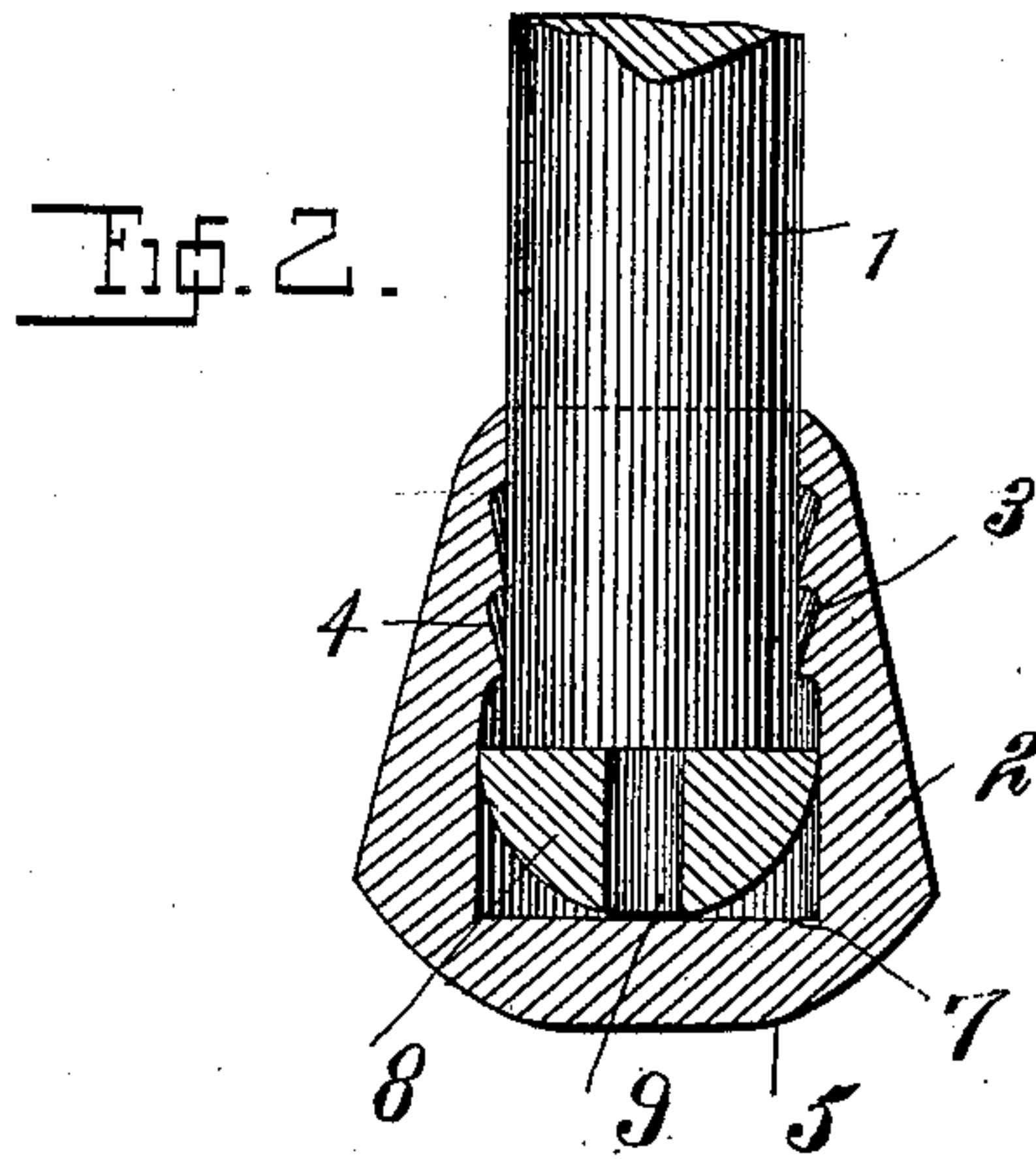
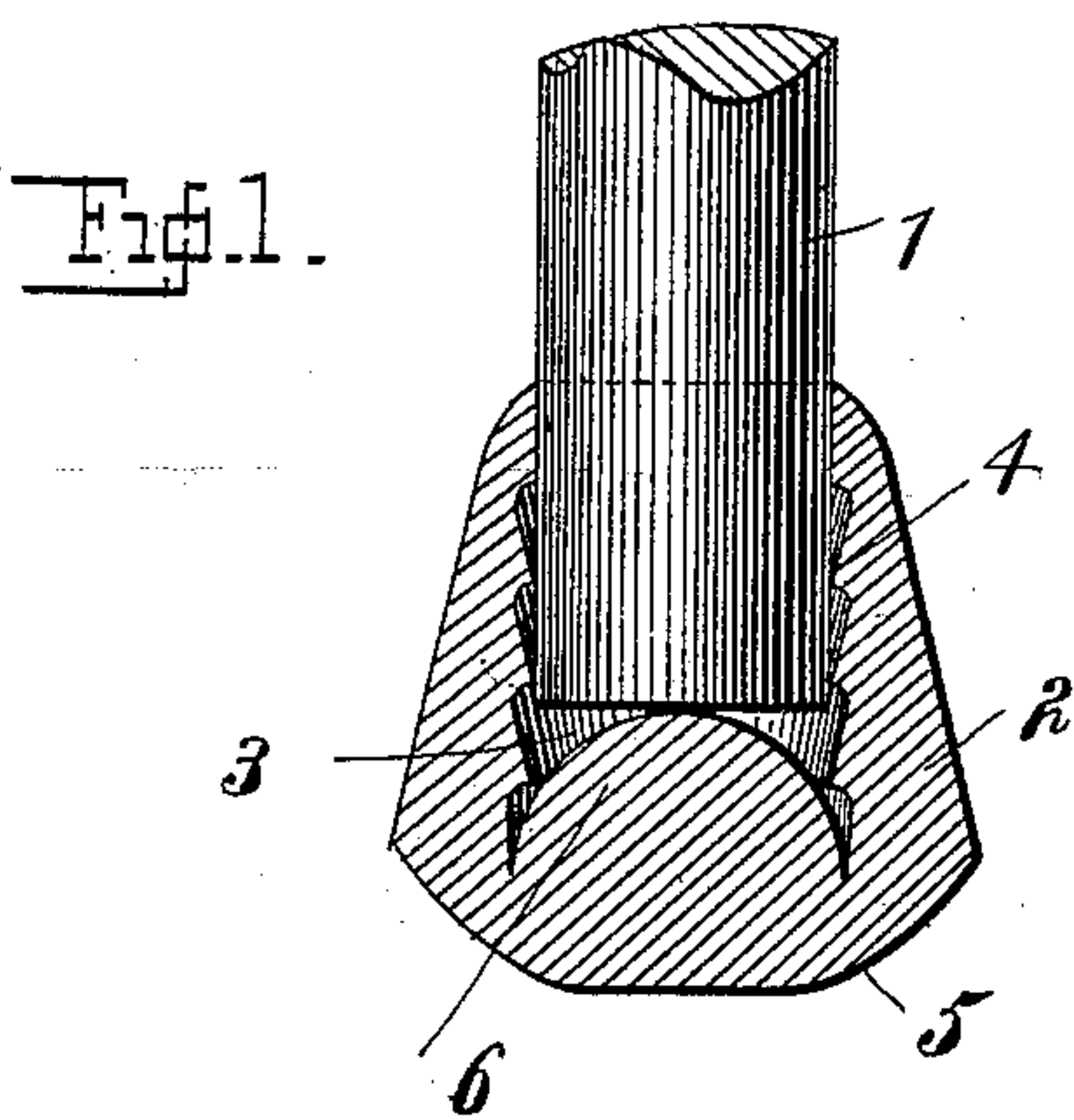


No. 624,207.

Patented May 2, 1899.

J. S. HAWLEY, JR.
TIP FOR CRUTCHES, CANES, &c.
(Application filed Nov. 23, 1898.)

(No Model.)



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TIP FOR CRUTCHES, CANES, &c.

SPECIFICATION forming part of Letters Patent No. 624,207, dated May 2, 1899.

Application filed November 23, 1898. Serial No. 697,253. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. HAWLEY, Jr., a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Tips for Crutches, Canes, and other Articles, of which the following is a specification.

The rubber cushioning-tips for crutches and canes as now commonly constructed are subject to very rapid wear, because the lower end of the crutch or cane rests directly upon the base of the tip-socket, and as the crutch or cane when in use rocks upon the cushioning-tip the opposite sharp edges or corners of the lower end of the crutch or cane alternately support the weight of the person and tend to cut through the cushioning-pad or bottom of the tip. On this account the usefulness of the ordinary cushioning-tips is of very short duration.

The object of my present invention is to avoid this serious objection by constructing a cushioning-tip for crutches and canes which will prevent engagement of the sharp edges or corners of the crutch or cane with the base of the tip-socket and which will be at the same time as economical to manufacture as the ordinary cushioning-tip now in use. To this end I provide a cushioning-pad in the base of the socket of the cushioning-tip for supporting the lower end of the crutch or cane at a point within its base and holding the sharp edges or corners thereof out of contact with the base of the tip-socket. This supporting cushioning-pad in the socket of the cushioning-tip may be formed integral with the tip or may be a separate piece inserted in the socket before the tip is secured upon the end of the crutch or cane, the pad being interposed between the crutch or cane and socket-base. When the cushioning-pad is formed integral with the tip, it is preferably of convex form, so as to centrally engage the lower end of the crutch or cane and support it centrally in the tip-socket. When the cushioning-pad is formed separate from the cushioning-tip, it may be hemispherical in shape or of elliptical cross-section.

In order that my invention may be fully understood, I will first describe the same with

reference to the accompanying drawings and afterward point out the novelty with more particularity in the annexed claims.

In said drawings, Figure 1 is a detail longitudinal sectional view of my improved cushioning-tip for crutches and canes. Figs. 2 and 3 are similar views showing slight modifications. Fig. 4 is a plan view of the form shown in Fig. 3.

1 represents the lower end of the crutch or cane, to which the cushioning-tip is to be attached.

2 is a rubber cushioning-tip formed with a central socket or cavity 3, having preferably circular engaging ribs 4 and a lower rounded base 5. In the bottom of the socket or cavity 3 is a convex cushioning-pad 6, which in Fig. 1 is represented as integral with the cushioning-tip 2.

In Fig. 2 the socket 3 of the cushioning-tip 2 is formed with a flat base 7, and supported upon the base 7 in the socket 3 is a hemispherical cushioning-pad 8, formed with or without a central opening 9. The pad 8 may be placed, as shown in Fig. 2, with the convex surface in contact with the socket-base, or the pad may be reversed, in which case it would be practically the same as the arrangement shown in Fig. 1.

In Fig. 3 the cushioning-pad 2 and its socket 3 are formed as in Fig. 2; but the cushioning-pad 10, supported in the base of socket 3, is of elliptical cross-section, the pad 10 being formed with or without the central opening 11.

It will be observed in Fig. 1 that the cushioning-tip 2 is mounted upon the lower end of the crutch or cane 1 in the usual manner by forcing the end of the crutch or cane into the socket 3 of the tip, the ribbed wall of the socket yielding sufficiently to allow the entrance of the end of the crutch or cane and its elasticity holding it securely thereon. The end of the crutch or cane is forced into socket 3 until it comes in contact with the convex pad 6, which supports it centrally in the socket and prevents the sharp edge or corner of the end of the crutch or cane coming in contact with the bottom wall of the socket when the crutch or cane is in use.

In Fig. 2 the hemispherical pad 8 is shown resting with its curved face in contact with

the base of the socket 3 and the end of the crutch or cane resting upon the flat face of the pad.

In Fig. 3 the end of the crutch or cane rests upon one curved face of the pad 10, while the other curved face rests upon the base of the socket.

The operation of the several forms of the device is practically the same. The cushioning-tip and pad-pieces are formed of the proper quality of rubber, as in the construction of the ordinary cushioning-tips. When the crutch or cane is rocked upon the cushioning-tip as a fulcrum, it will be observed that pressure is applied first to one side of the tip and then to the other. The cushioning-pad 6, 8, or 10 supports the end of the crutch or cane centrally in the socket and prevents the sharp edges or corners coming in contact with the base of the tip-socket, and thereby avoids the possibility of said sharp edges cutting through the cushioning-tip. The cushioning-pad 6, 8, or 10 also materially increases the cushioning effect of the tip and prolongs the usefulness of the tip, for the body of the cushioning-pad is always interposed between the bottom of the tip and end of the crutch, cane, or other article and in the direct line of thrust.

The improved cushioning-tip may be employed on chair-legs and other articles to ef-

fectually afford the desired cushioning of the same.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. A cushioning-tip for crutches and canes formed with a socket to receive the lower end of the crutch or cane and having an elastic pad in the base of the socket arranged to centrally support the end of the crutch or cane in the socket and prevent the sharp edge or corner of the lower end of the crutch or cane coming in contact with the base of the tip-socket, substantially as and for the purpose set forth.

2. The combination with a socketed cushioning-tip for crutches and canes, of a cushioning-pad in the tip-socket formed with a curved or convex face and supporting the lower end of the crutch or cane centrally in the socket, substantially as and for the purpose set forth.

3. A cushioning-tip for crutches and canes formed with a receiving socket or cavity and a convex cushioning-pad in the base of the socket formed integral with the cushioning-tip, substantially as set forth.

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