

No. 717,505.

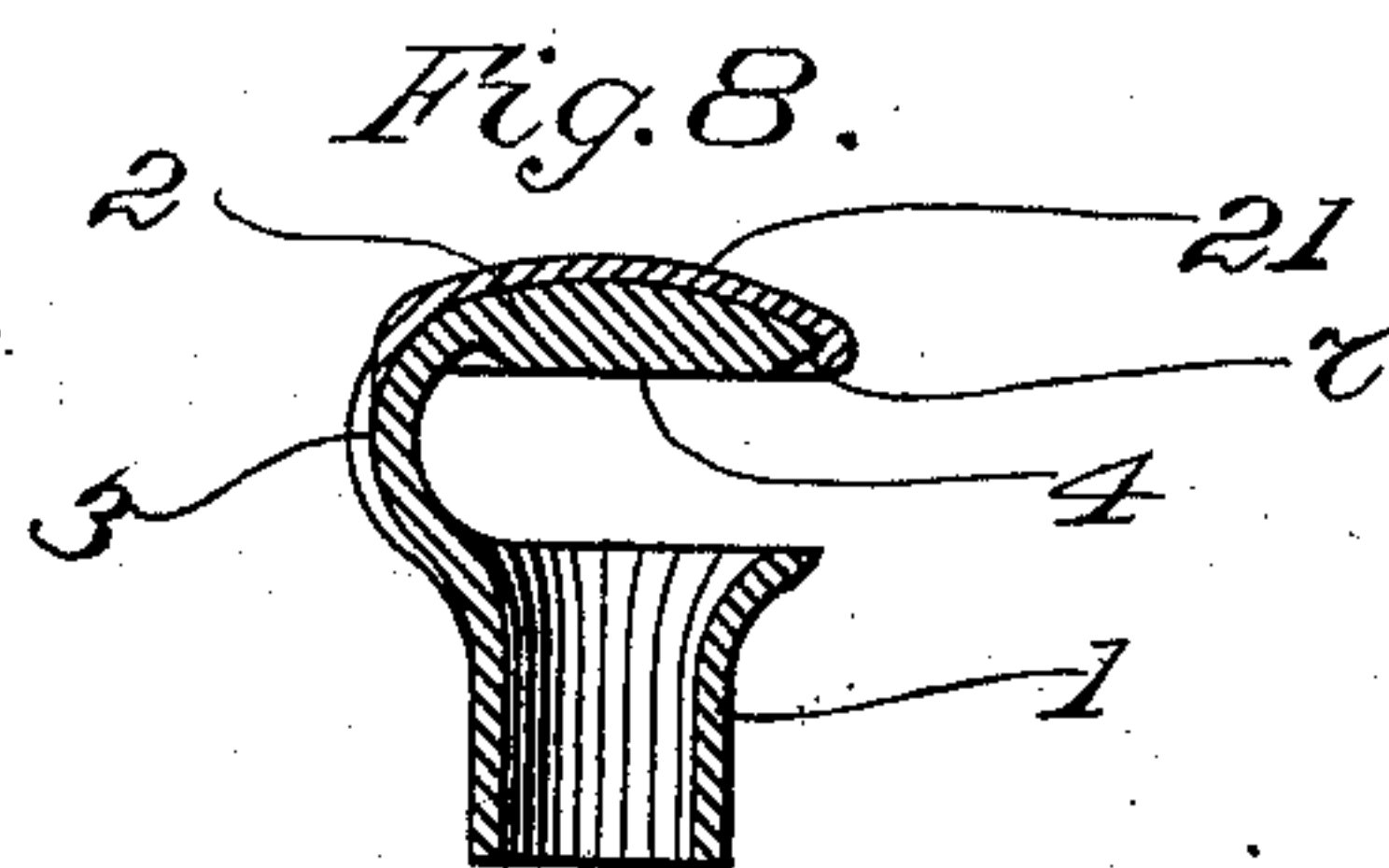
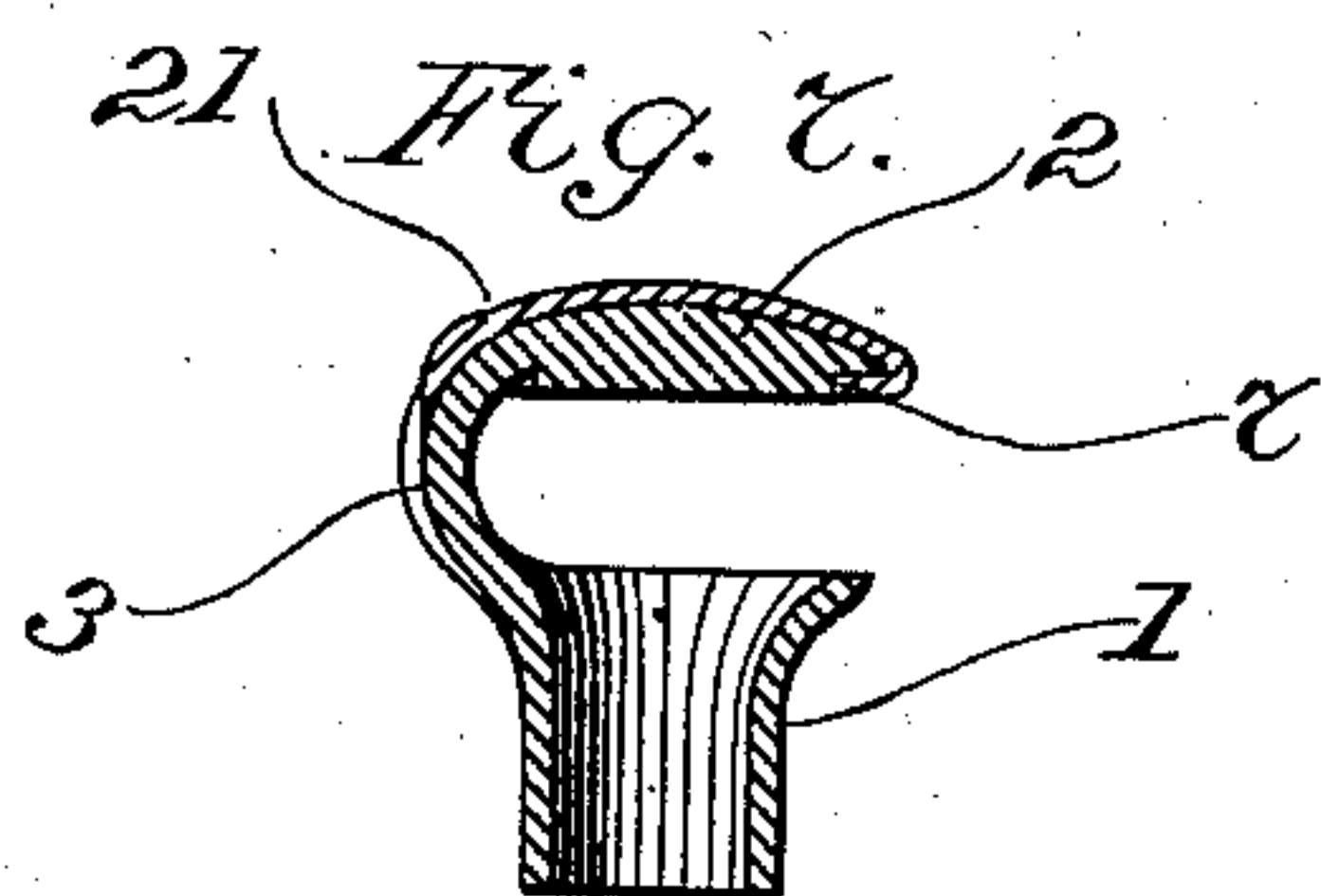
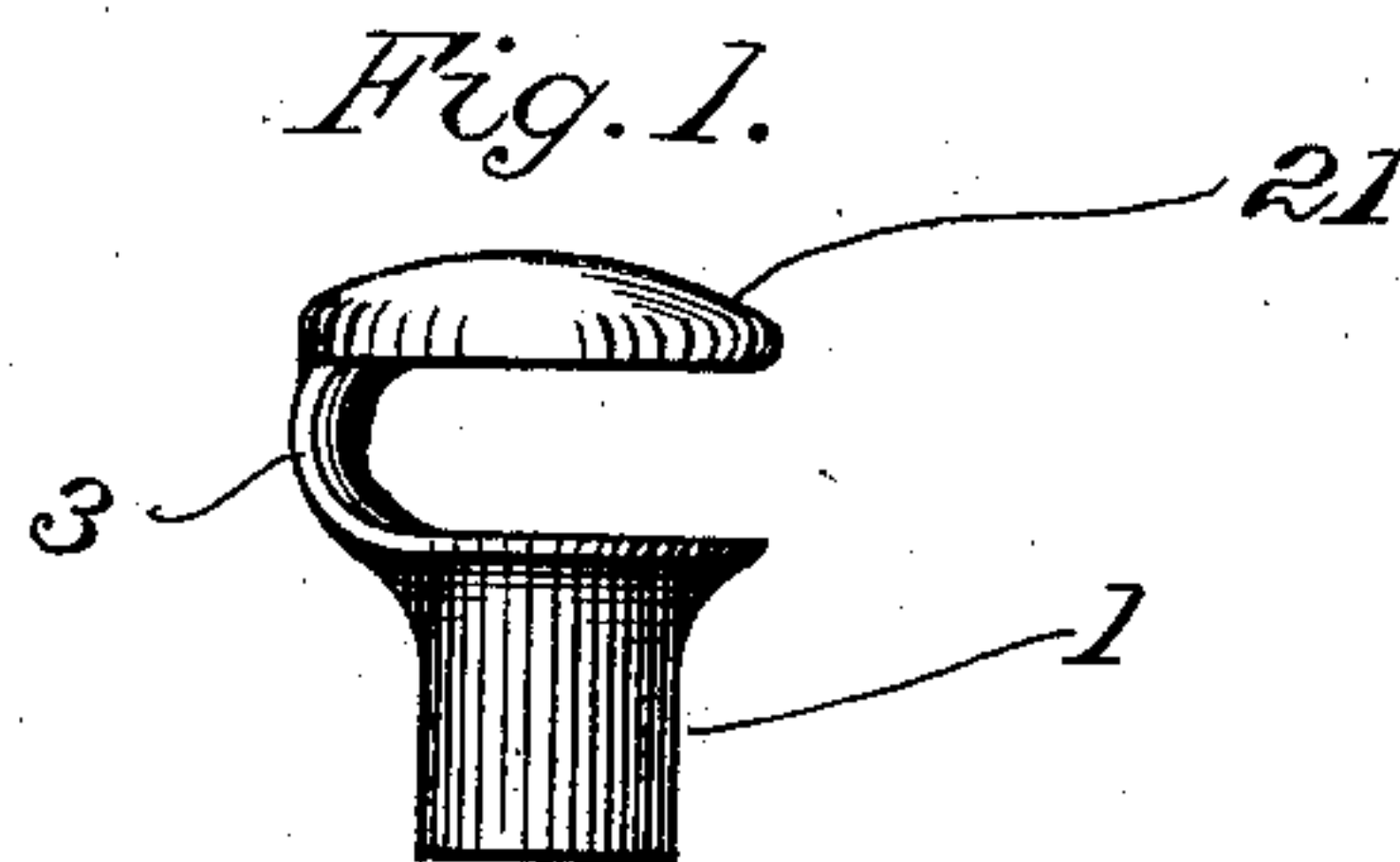
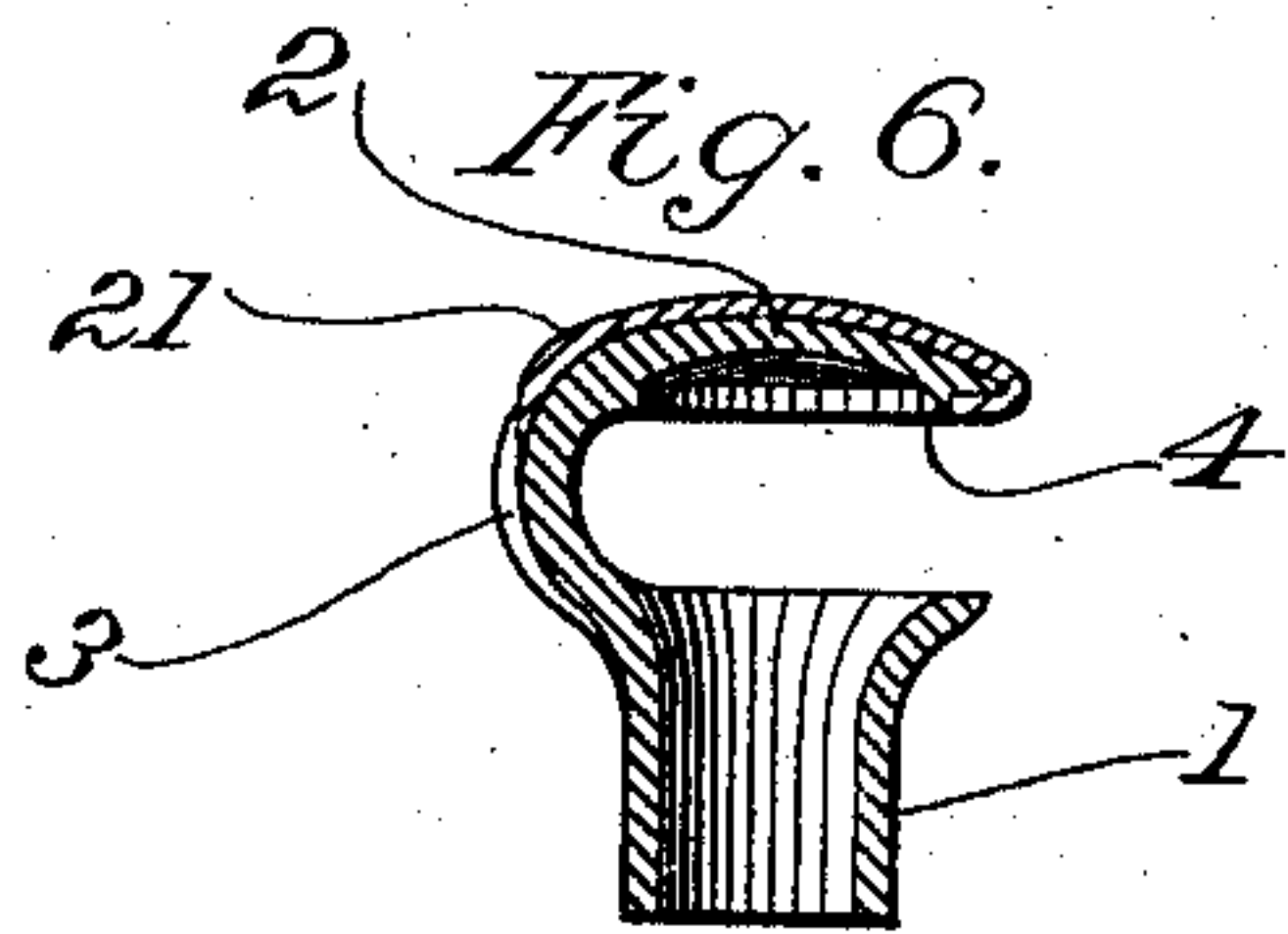
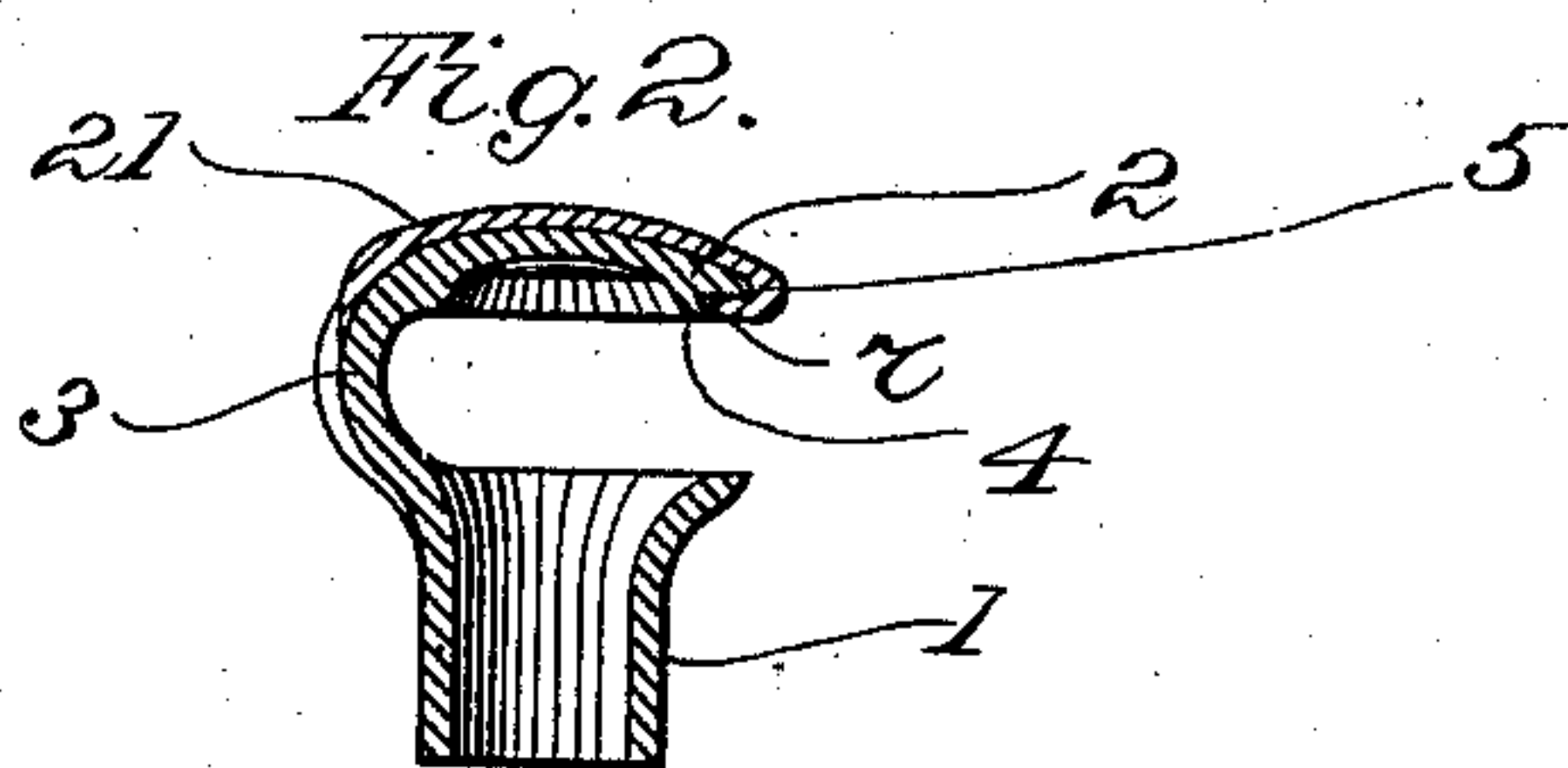
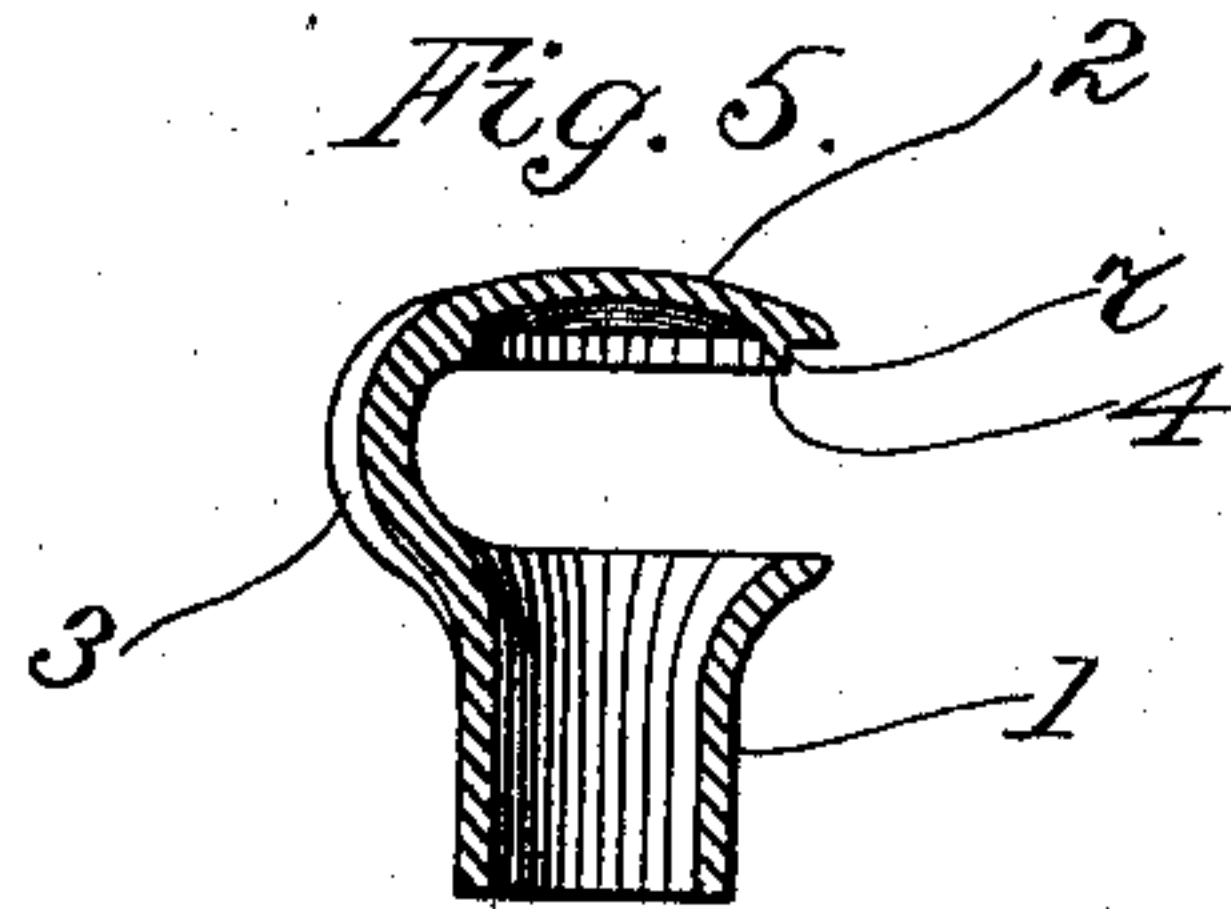
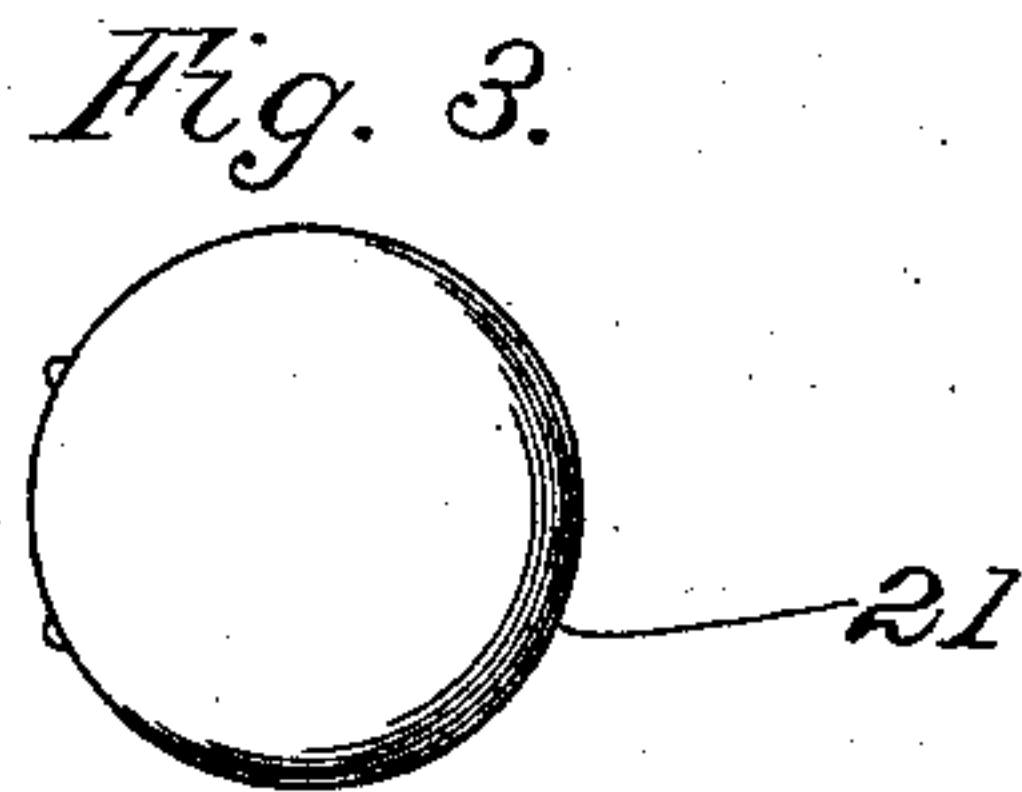
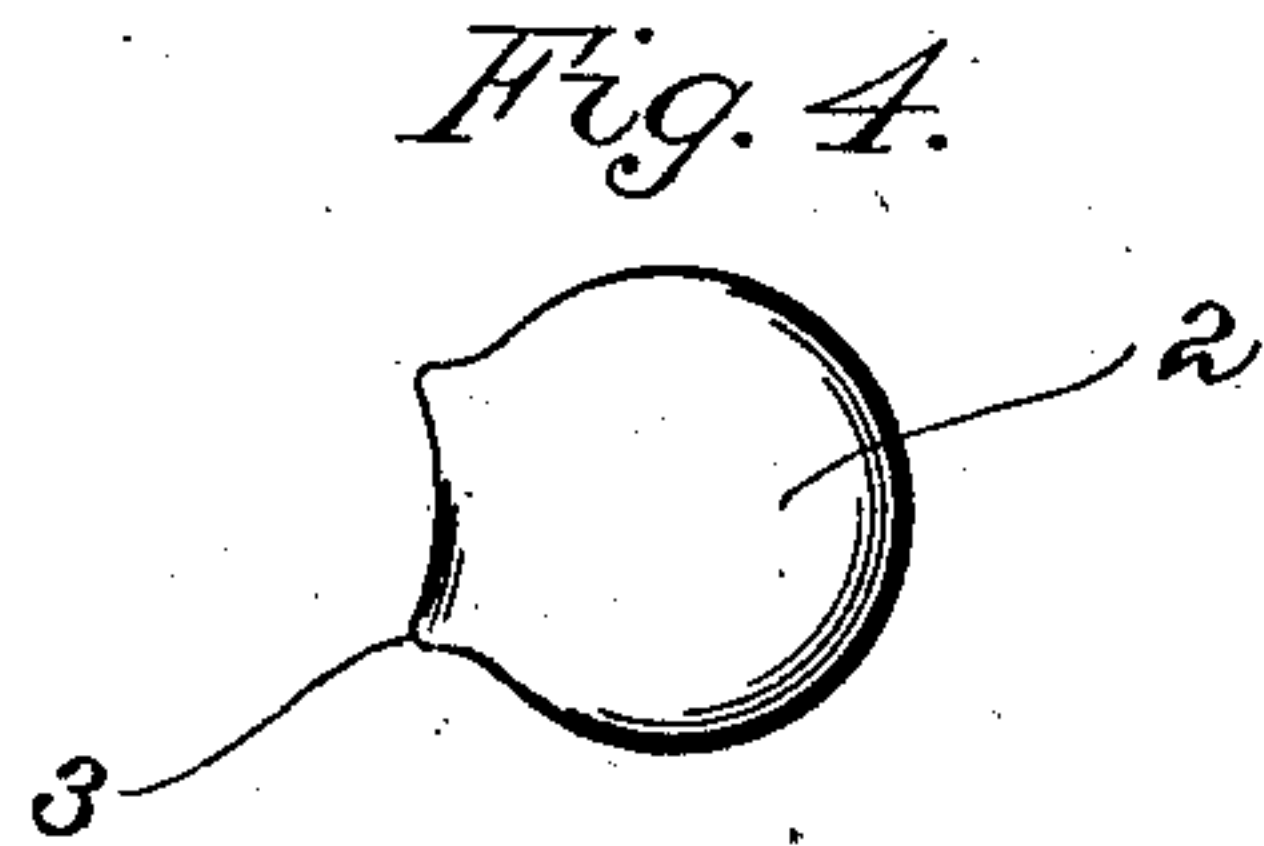
Patented Dec. 30, 1902.

F. N. LOOK & A. C. ESTABROOK.

COVERED LACING HOOK.

(Application filed Jan. 16, 1897.)

(No Model.)



Witnesses:

Oscar F. Hill

Alice H. Morrison

Inventors

Frank N. Look

Alexander C. Estabrook

by Macleod Calver & Randall

Attorneys.

# UNITED STATES PATENT OFFICE.

FRANK N. LOOK AND ALANSON C. ESTABROOK, OF NORTHAMPTON,  
MASSACHUSETTS.

## COVERED LACING-HOOK.

SPECIFICATION forming part of Letters Patent No. 717,505, dated December 30, 1902.

Application filed January 16, 1897. Serial No. 619,460. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK N. LOOK and ALANSON C. ESTABROOK, citizens of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Covered Lacing-Hooks, of which the following is a specification, reference being had therein to the accompanying  
10 drawings.

Our invention has for its object to provide a covered lacing-hook of improved construction and perfect and satisfactory appearance in the manufacture of which a minimum amount  
15 of the covering material will require to be employed, so that a saving in the expense of manufacture may be effected and which also shall have the said covering material secured so effectively upon the said hook as to re-  
20 duce the danger of the separation of the covering material or of any portion thereof from the hook when the latter is handled or applied to use.

Our invention is fully set forth in the following description, and the novel features thereof are pointed out and clearly defined in the claims at the close of this specification.

In the accompanying drawings, to which  
30 reference is made in the following description, Figure 1 is a view in side elevation of a covered lacing-hook embodying our invention. Fig. 2 is a view thereof in vertical central section. Fig. 3 is a top view thereof. Fig. 4  
35 is a top view of an uncovered hook. Fig. 5 is a view in central vertical section of a hook with the covering omitted and embodying a modification. Fig. 6 is a similar view thereof with the covering applied. Figs. 7 and 8 are  
40 views in vertical central section of hooks with the covering applied thereto, showing further modifications.

In the manufacture of covered lacing-hooks a covering of material which is rendered plastic by the presence of heat—such, for example, as celluloid—is molded over the crown or the crown and neck of the hook. In this manner a lacing-hook is produced having those portions thereof which are exposed when  
50 the hook is set in the material to which it is to be applied provided with a covering that

may be given any desired color. Thereby the said portions are rendered durable, are prevented from changing their color in use, and are given a finer finish and handsomer  
55 appearance than can be had upon a lacing-hook on which a covering is not employed. Inasmuch as the covering material that is employed is expensive it is desirable that the covering of the hook should be effected with  
60 the use of a minimum amount thereof, and also, since the hooks require to be handled considerably and to be subjected to the operation of a setting-machine and frequently are exposed to hard wear in use, it is desirable that  
65 the covering material be very firmly anchored or secured in position on the hook. Attempts have been made heretofore to minimize the amount of covering material which is required to be used on a lacing-hook.  
70

By the employment of our invention hereinafter described the hook may be covered by the employment of a less amount of material than heretofore required and the latter may be firmly anchored or secured to the  
75 hook, so that the liability of its displacement or separation from the hook when the latter is in use is reduced to a minimum.

Our invention is very simple and will be readily understood from the following description.  
80

The barrel of the hook is shown at 1 and the crown thereof at 2. The crown has a smooth and preferably convex or rounded upper surface, as shown, without projection  
85 from one edge thereof to the other. The said crown and barrel are connected in usual manner by a neck 3, which neck may be curved in cross-section, as shown in Fig. 4. We rabbet or undercut the peripheral portion of  
90 the crown, so as to form a reduced or thinned peripheral edge and to produce on the under side of the crown of the hook at a slight distance inward of such edge a downwardly-projecting portion, flange, or shoulder—such,  
95 for example, as shown at 4, Fig. 2—which extends around the entire central portion of the under surface of the said crown 2 and projects downwardly below the circumferential edge 5 of the said crown portion. In the  
100 operation of molding the covering upon the hook the lower surface of the downwardly-



projecting portion rests on the supporting-plate, which customarily is placed in the mouth of the hook in well-known manner when the hook is in the dies and is having the covering 21 molded thereon. Thereby the upper part of the hook is supported and sustained during the time while the dies are compressed together. In addition the peripheral edge of the said downwardly-projecting portion, which is indicated by the line 7, forms a dam in the process of molding the covering onto the hook, up to and against which dam the said covering is pressed—that is to say, the covering material flows around the outwardly-projecting edge 5 of the crown and is pressed inwardly into the angular space between said edge 5 and line 7, which line forms the edge of the downwardly-projecting portion 4. This will be clear by reference to the drawings. The covering material is also molded in a thin layer over the entire exterior of the crown of the hook and, if desired, down to the neck of the hook, filling the concave or curved neck in the manner shown in the sectional views. We prefer to make the downwardly-projecting portion 4 on the underside of the crown of the hook hollow—that is to say, consisting of a cylindrical or downwardly-projecting annular flange, as shown in Figs. 2, 5, and 6, against the outer surface 7 of which the said covering material is pressed and molded. Preferably, also, the said projection will be formed with an outwardly and downwardly inclining edge 7, as in Fig. 2. If desired, however, the projection 4 may have a vertical edge, as shown in Figs. 5 and 6 and also in Fig. 7, in the case of the solid projection shown in the latter figure, or the said edge even may be inclined inwardly and downwardly in substantially a reversed direction to the edge 7 shown in Fig. 2, as in the case of edge 7 in Fig. 8. The precise angle which the line of the said edge forms with the under side of the crown is not material so long as the said edge presents a surface up to and against which the covering material may be molded or pressed in the operation of covering the hook, as previously described. It will be clear that the said projection 4 may be solid, as in Figs. 7 and 8. Whether the said projection be hollow or solid, it serves to stiffen the crown of the hook and serves as a support therefor while the latter is in the molding-die in addition to serving as a dam or barrier against which the inflowing material is pressed and molded.

We are aware that it has been proposed heretofore to form a downward projection on the under side of the crown of a lacing-hook

by indenting the central portion of the crown, and thus forming on the upper or exterior surface thereof a depression corresponding to the projection on the under surface thereof, or by forming a raised rib or flange projecting upwardly from the crown. These forms of construction are objectionable not only as requiring the use of a maximum amount of covering material, but for other reasons obvious to those skilled in the art, among which is the tendency of the covering material on the upper surface of the crown to contract by shrinking and form an indentation or depression. We therefore do not claim the same.

It is advisable that only so much of the covering material should pass beneath the peripherally-extending edge 5 of the crown as is needed for the purpose of giving positive anchorage. Hence the projection 4 should be in diameter as near to the total diameter of the crown as possible.

What we claim is—

1. The improved lacing-hook having the crown thereof formed with a smooth convex upper surface and also having the peripherally-projecting edge portion undercut or rabbeted beneath the same as described and the projection extending downwardly from the crown closely adjacent the periphery of the crown to form a support for the latter in the operation of molding, the edge of the said projection constituting a dam to terminate the flow inwardly of the covering material, substantially as described.

2. The combination with the lacing-hook having the crown thereof formed with a smooth convex upper surface, and also having the peripherally-projecting edge portion undercut or rabbeted beneath the same as described and the projection extending downwardly from the crown closely adjacent the periphery of the crown to form a support for the latter in the operation of molding, the peripheral edge of the said projection constituting a dam to terminate the flow inwardly of the covering material, of the covering forming a thin sheet of substantially uniform thickness over the said upper surface of the crown and extending around the said edge portion to the said peripheral edge of the said projection, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK N. LOOK.  
ALANSON C. ESTABROOK.

Witnesses:

J. E. WINCHELL,  
A. E. EWING.