

No. 760,331.

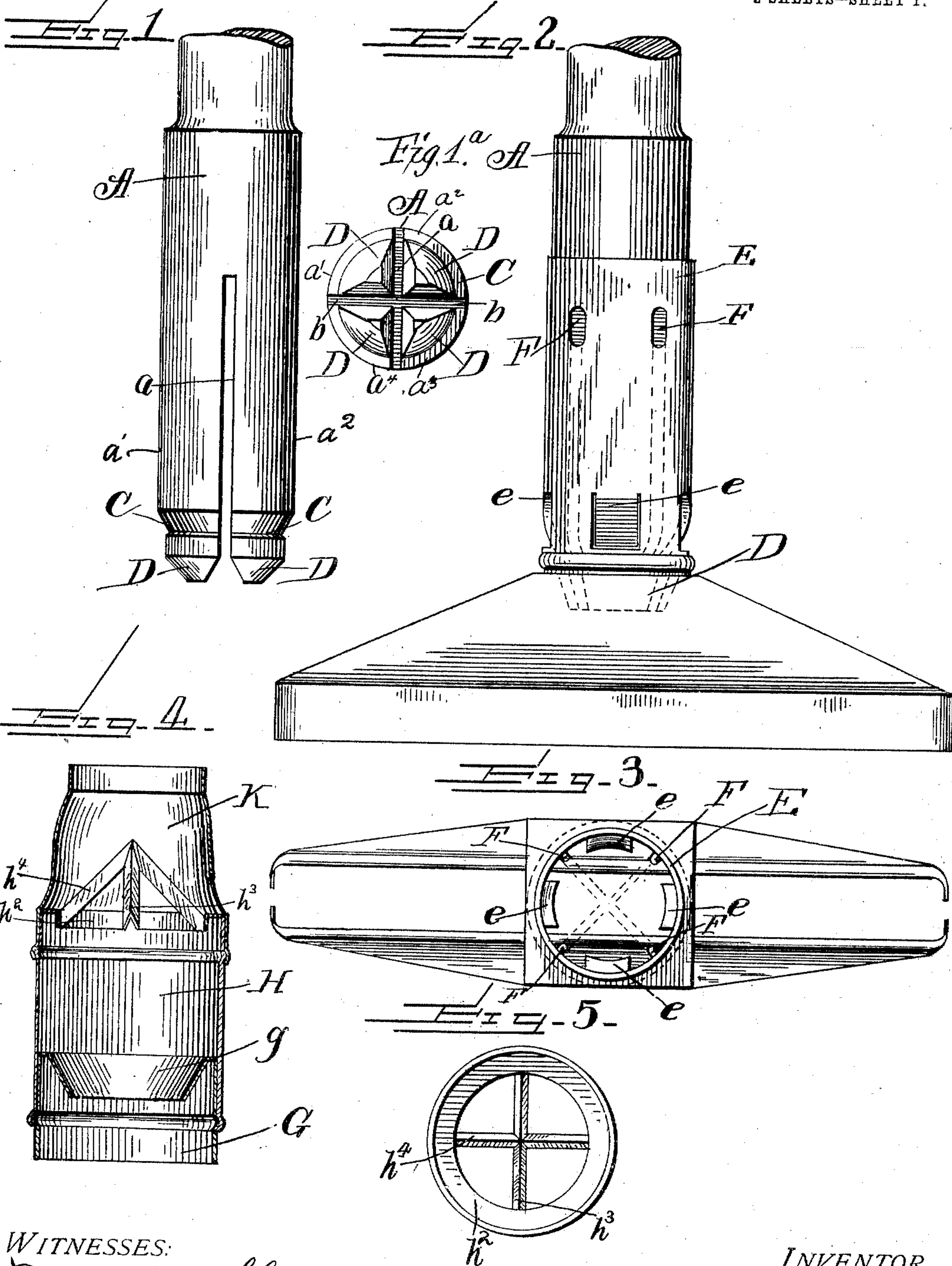
PATENTED MAY 17, 1904.

R. D. GALLAGHER, SR.
HANDLE AND SOCKET.

APPLICATION FILED MAR. 4, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Eugene W. Slincy.
Marion E. Costello.

INVENTOR

Richard D. Gallagher, Sr.,
by R. S. Dyer for him,
his attorney.

No. 760,331.

PATENTED MAY 17, 1904.

R. D. GALLAGHER, SR.
HANDLE AND SOCKET.
APPLICATION FILED MAR. 4, 1903.

NO MODEL.

2 SHEETS—SHEET 2.

Fig. 6.

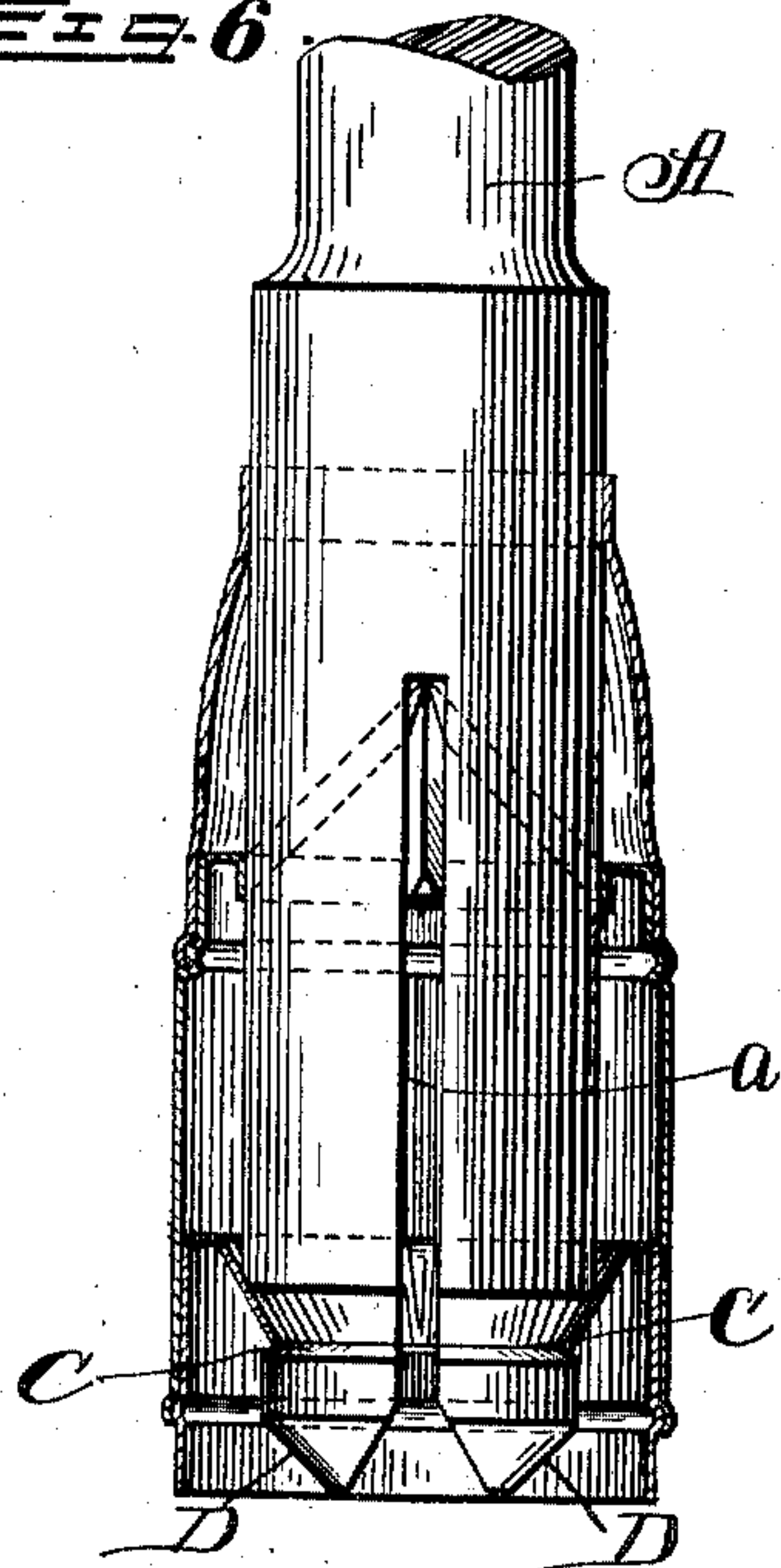


Fig. 8.

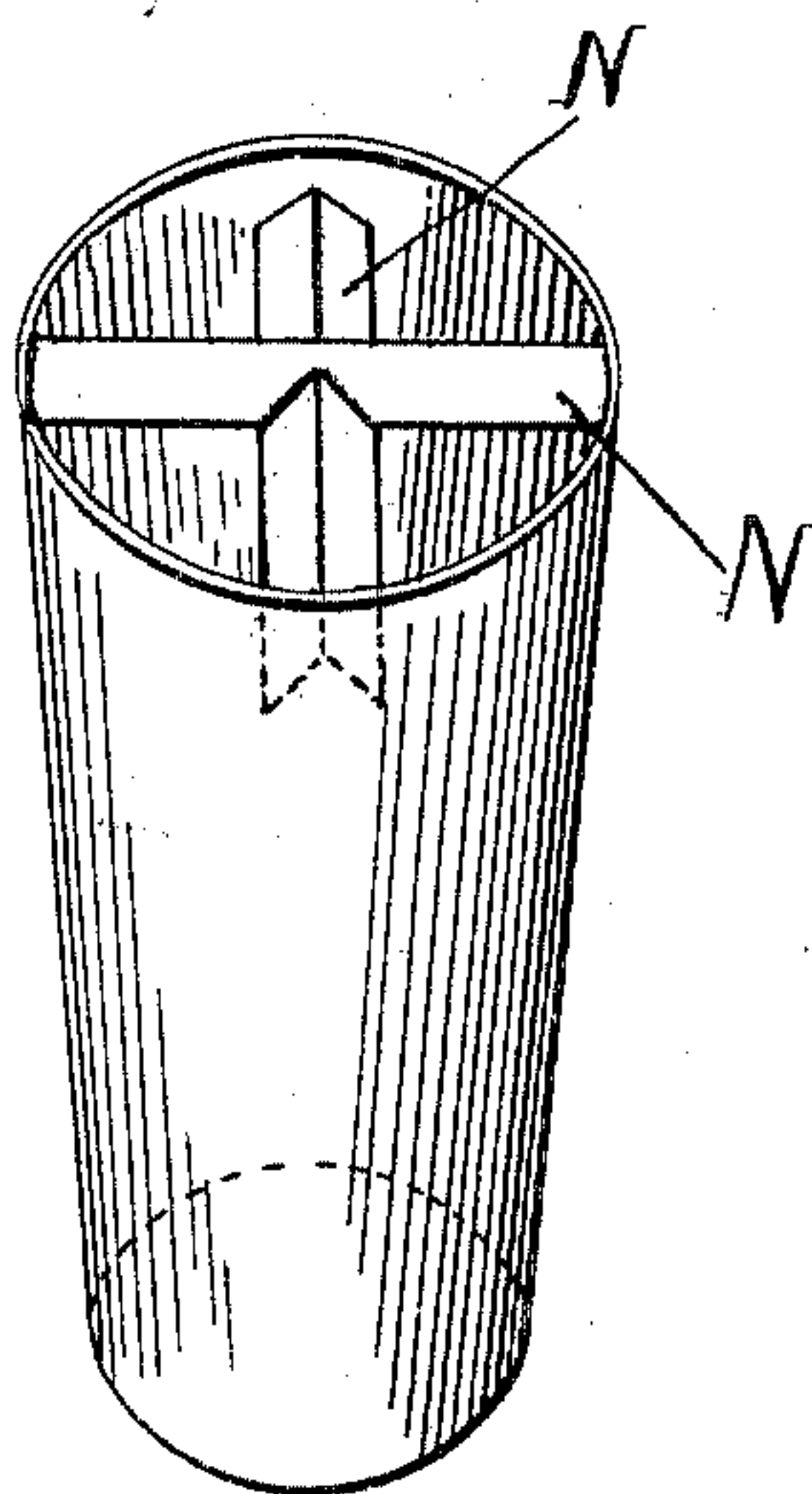


Fig. 7.

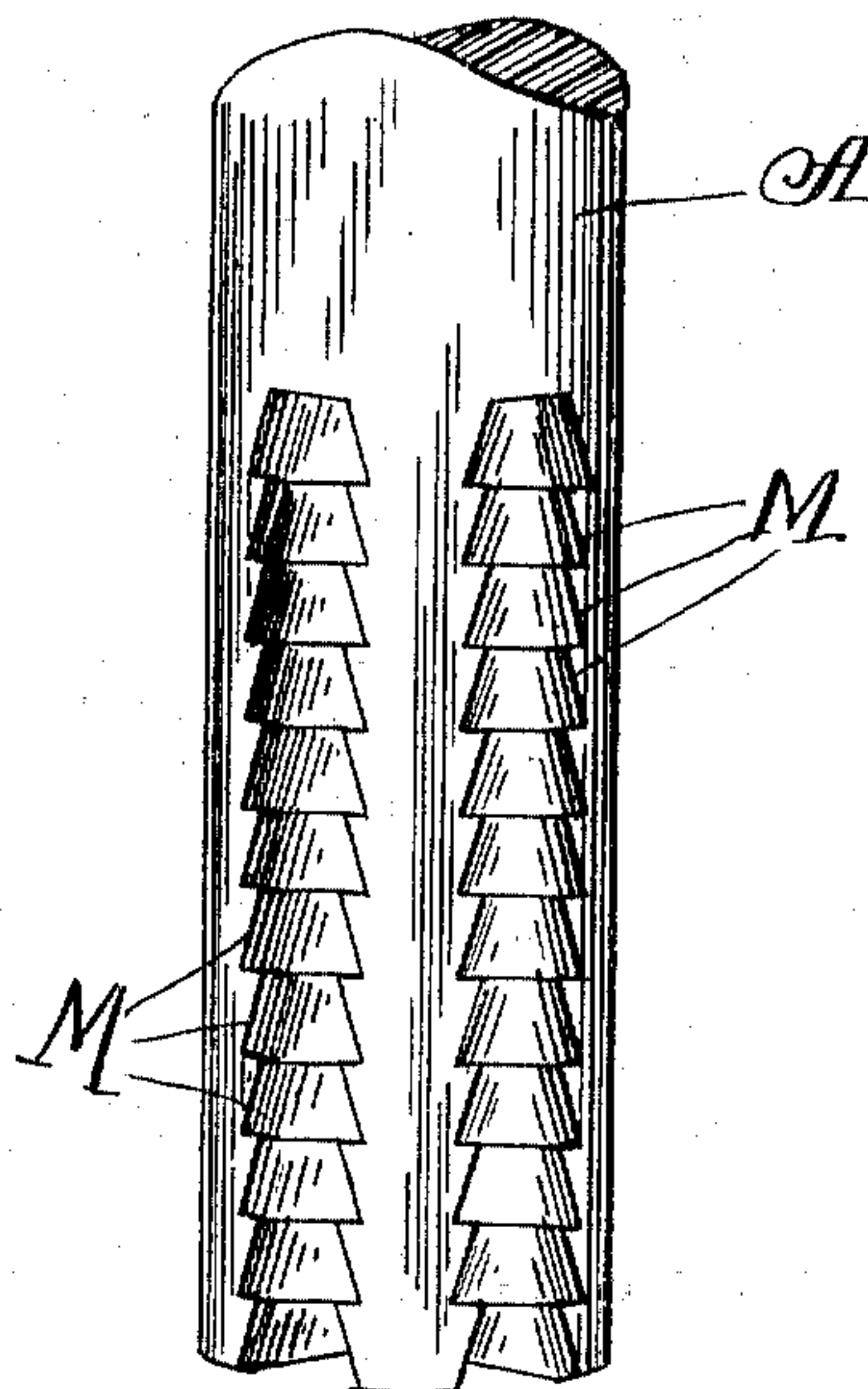
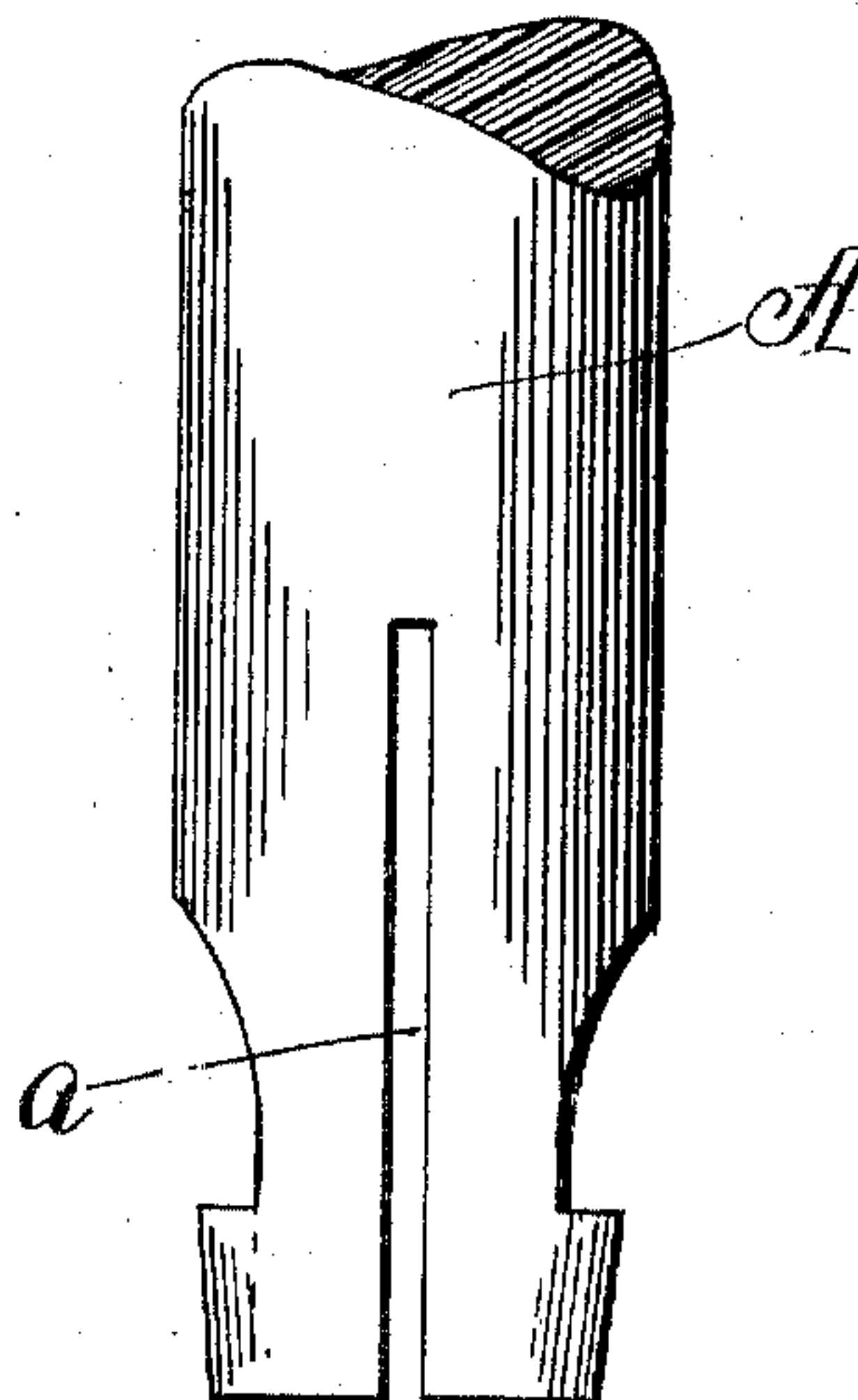


Fig. 9.



WITNESSES:

Eugene M. Shiner
Harris E. Costello

INVENTOR

Richard D. Gallagher, Sr.

by *Wm. D. Symonds*,
his attorney.

UNITED STATES PATENT OFFICE.

RICHARD D. GALLAGHER, SR., OF OMAHA, NEBRASKA, ASSIGNOR OF
THREE-FOURTHS TO W. H. HARRISON, H. N. JEWETT, AND ELLA T.
SHAW, OF OMAHA, NEBRASKA.

HANDLE AND SOCKET.

SPECIFICATION forming part of Letters Patent No. 760,331, dated May 17, 1904.

Application filed March 4, 1903. Serial No. 146,224. (No model.)

To all whom it may concern:

Be it known that I, RICHARD D. GALLAGHER, Sr., a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Handles and Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to means for securing implements to handles; and it consists in the constructions, combinations, and arrangements herein-described and claimed.

In the accompanying drawings, forming a part of this application, and in which similar reference-letters indicate corresponding parts in the several views, Figure 1 shows the securing portion of a handle. Fig. 1^a is a bottom view of Fig. 1. Fig. 2 is a side elevation of a socket member secured to a handle. Fig. 3 is a plan view of the socket member shown in Fig. 2. Fig. 4 shows another form of socket member. Fig. 5 is an end view of the latter. Fig. 6 shows the socket of Fig. 4 with the handle in position. Fig. 7 shows a modified form of handle. Fig. 8 shows a socket for the latter form of handle. Fig. 9 illustrates a further modified form of handle.

Referring to the drawings, A indicates any usual implement-handle provided with a longitudinal slot or kerf *a*. I preferably employ two such slots *a* and *b*, dividing the handle into four resilient members *a'*, *a''*, *a'''*, and *a''''*, as clearly shown in Fig. 1^a. The slotted handle end is shown beveled at D and provided with a peripheral groove C. A socket member E is formed to snugly fit the slotted handle end and is provided with inwardly-extending lugs *e* and projections F. As shown in Figs. 2 and 3, these lugs are formed by properly cutting the material of the socket member and bending portions thereof to constitute lugs.

To position the socket member on the handle, the projections F are inserted in the slots *a* *b* and the socket member then forced into

place over the slotted handle end. During such operation the lugs *e* will engage the beveled ends D of the four members *a'*, *a''*, *a'''*, and *a''''* of the handle end and act to spring them inward sufficiently to permit the lugs to enter the peripheral groove C. Upon entrance of the lugs *e* into the peripheral groove C the four members of the slotted handle end will spring outward to their normal position and bring the lower surface of such groove into locking engagement with said lugs. It will thus be seen that the socket member will be locked against withdrawal from the handle and prevented from rotation thereon by the projection F.

The socket member can obviously be adapted to any implements or articles which are capable of being satisfactorily attached to a handle by a socket.

Figs. 4, 5, and 6 illustrate a modified construction consisting of three portions G, H, and K, which are spun or otherwise suitably secured together. The portion K carries a supporting-flange *h''* for rods *h'''* and *h''''*, which latter are preferably inclined to meet in a common apex and constitute means for entering the slots *a* *b*, formed in the handle end. The portion G carries a downwardly-tapered flange *g*, constructed to engage the peripheral groove C in the handle end. In this construction the upper end of the portion K and the supporting-flange for the rods *h'''* *h''''* are preferably formed to snugly fit the handle, and thus constitute bearing-surfaces.

Instead of having the sections or segments of the handle engage with the contacting portion *e* and F of the socket the sections or segments may have notches M formed on the opposite walls or sides of the slot or slots, as shown in Fig. 7, and the socket, which in this instance is preferably made tapering, (see Fig. 8,) has two cross-bars N, preferably beveled, the shape of the bars being a triangle. When the handle is forced into the socket, the ratchet-shaped notches will slip past the cross-bars in the socket. The handle is forced down the socket until the cross-bars of the socket arrive at the upper end of the slitted portions

of the handle and engage the topmost notches M in the walls or sides of the slots. Now as the socket is made smaller at the bottom, as shown, and will therefore bring the segments 5 of the handle together and keep them from spreading and the topmost notches M hold the bars N the handle is held firmly in the socket against withdrawal and also is prevented from turning in the socket. In other 10 words, the socket being made smaller at the bottom will bring the sections or segments of the handle together and keep them from spreading, and the topmost notches M, engaging the bars of the socket member, hold 15 the handle firmly in the socket member against withdrawal and also prevent turning of the handle in the socket.

Figs. 9 and 10 show a modification in which the handle end is provided with a single slot 20 *a* instead of with the two intersecting slots *a* and *b*, illustrated in the previous figures.

While I have illustrated my preferred constructions, many changes could obviously be made within the spirit and scope of my invention. 25

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

1. The combination with a handle having a 30 beveled and slotted end, constituting a plurality of resilient members, and having a peripheral groove formed with its lower engaging surface at an angle to the length of such resilient members, of a socket member, means 35 carried by said socket member and constructed to enter between said resilient members to prevent turning of the socket member thereon, and means carried by the socket member and constructed to ride over the beveled ends 40 of the resilient members and to lockingly engage the said lower engaging surface of the peripheral groove, substantially as described.

2. The combination with a handle having a beveled and slotted end, constituting a plurality of resilient members, and having a peripheral groove formed with its lower engaging 45 surface at an angle to the length of such resilient members, of a socket member, projections carried by said socket member and

constructed to enter between said resilient 50 members to prevent turning of the socket member thereon, and lugs carried by the socket member and constructed to ride over the beveled ends of the resilient members and to lockingly engage the said lower engaging 55 surface of the peripheral groove, substantially as described.

3. The combination with a handle having a beveled and slotted end, constituting a plurality of resilient members, and having a peripheral groove formed with its lower engaging 60 surface at an angle to the length of such resilient members, of a socket member, projections carried by said socket member and constructed to enter between said resilient 65 members to prevent turning of the socket member thereon, and a series of downwardly-converging lugs carried by the socket member and constructed to ride over the beveled ends of the resilient members and to lockingly 70 engage the said lower engaging surface of the peripheral groove.

4. The combination with a handle having a slotted end, constituting resilient members, each member being provided with an offset, 75 of a socket member provided with an interior projection to engage said offsets of the resilient members lockingly to engage the same to retain the handle in the socket member, and means carried by the socket member and arranged to enter between said members to prevent 80 turning of the socket member thereon, substantially as described.

5. The combination with a handle having a slotted end, constituting resilient members, 85 each member being provided with an offset, of a socket member, and means arranged to engage said offset members for positively locking said handle against withdrawal from, and turning in, said socket member, substantially 90 as described.

In testimony whereof I affix my signature in the presence of two subscribing witnesses.

RICHARD D. GALLAGHER, SR.

Witnesses:

ED R. SHAW,

G. R. COLEMAN.