

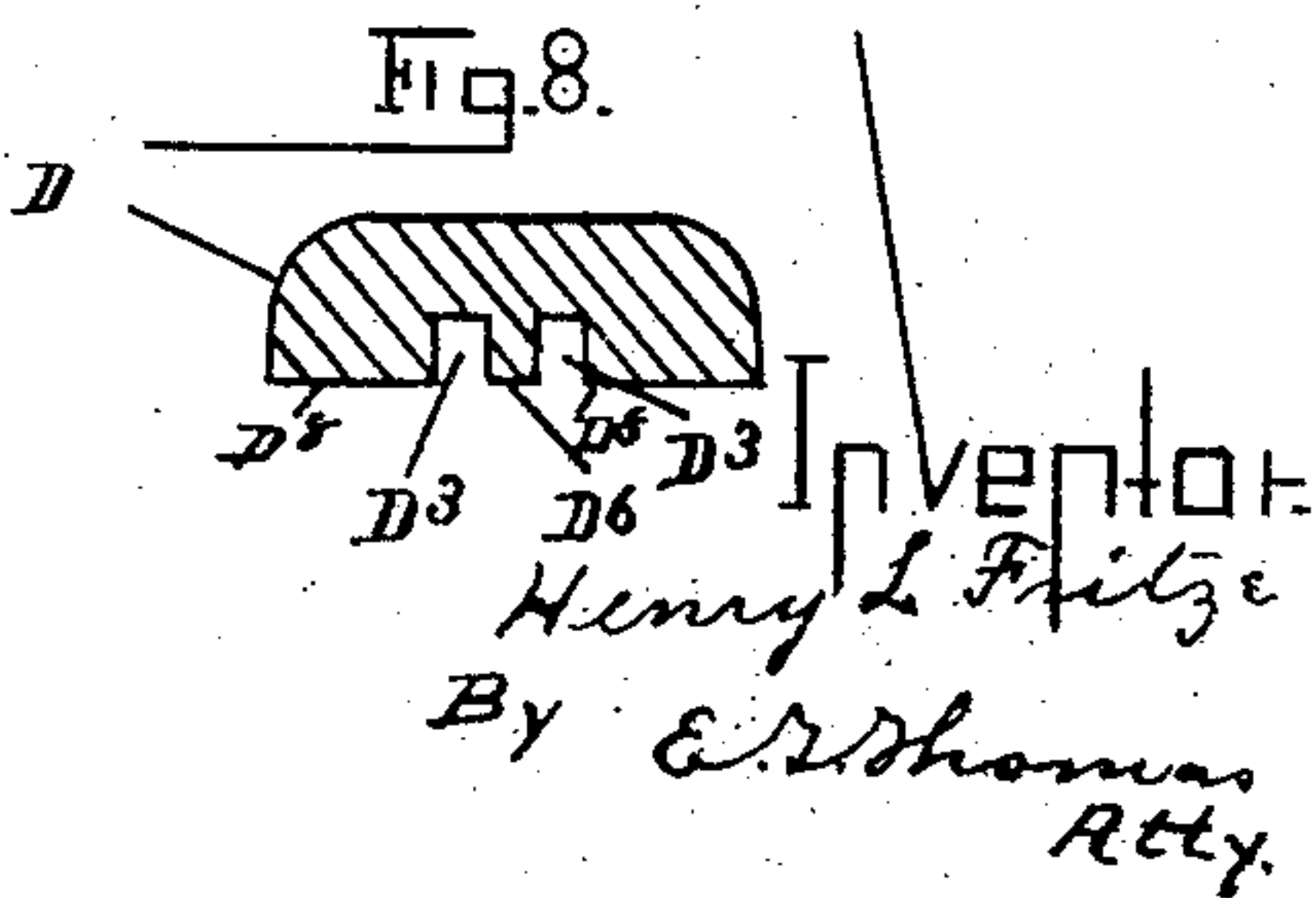
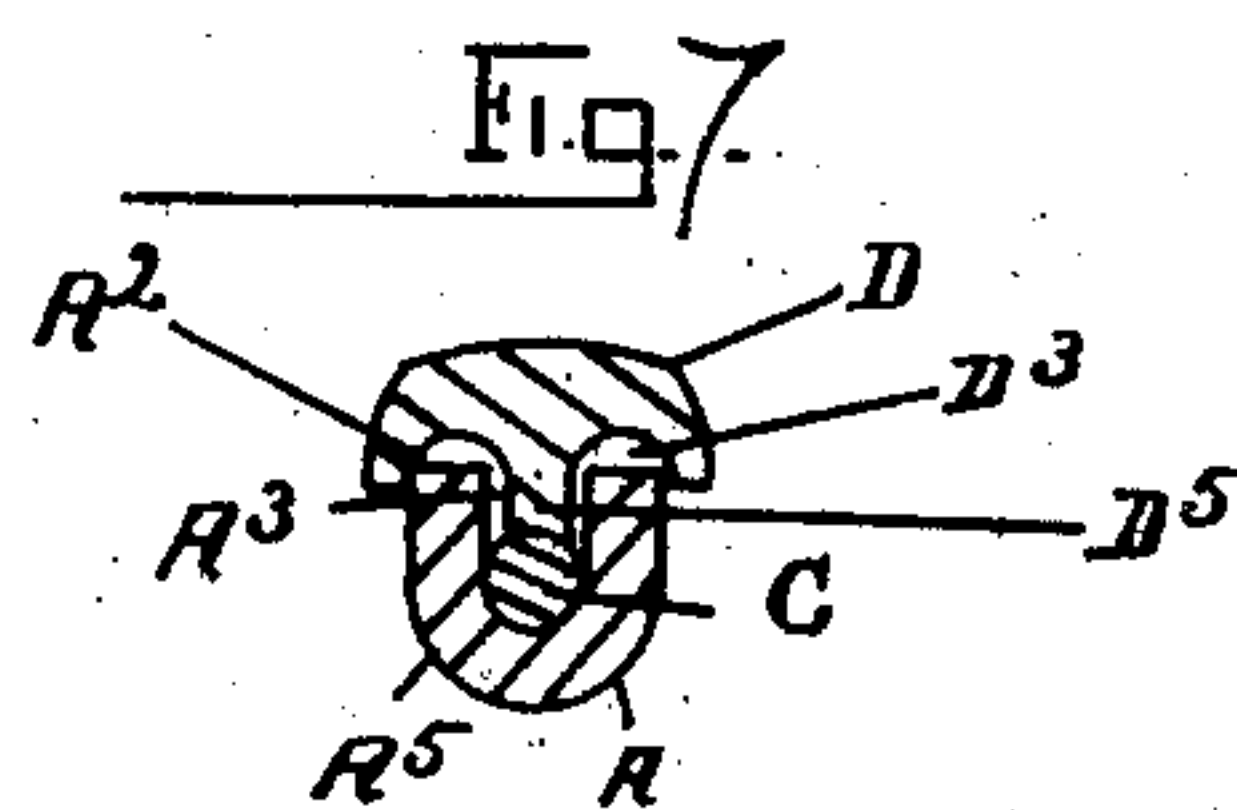
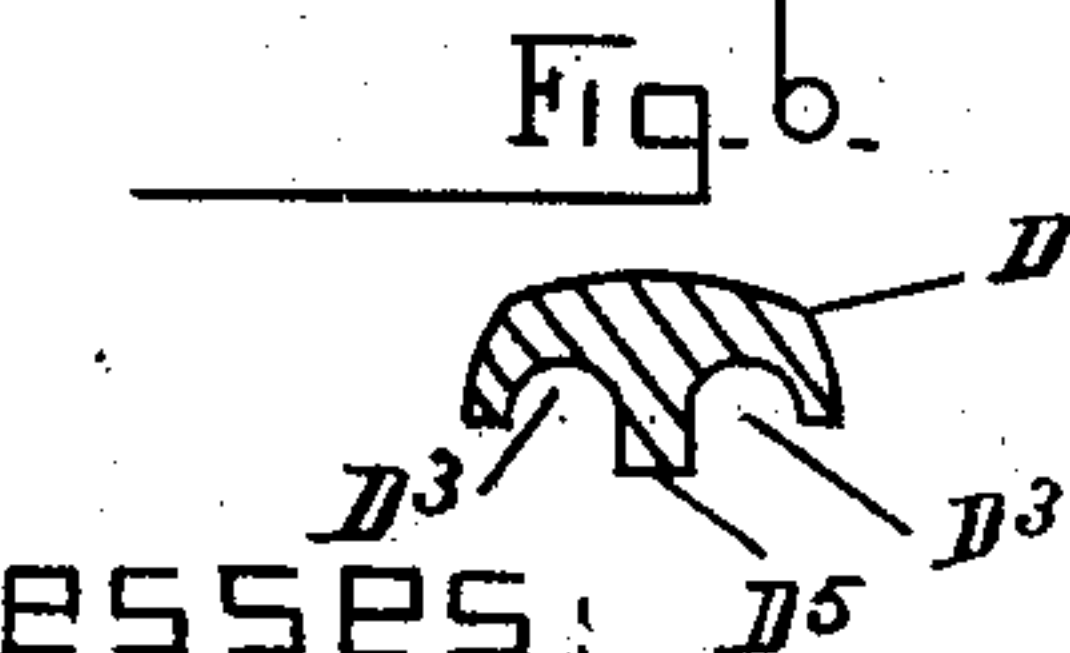
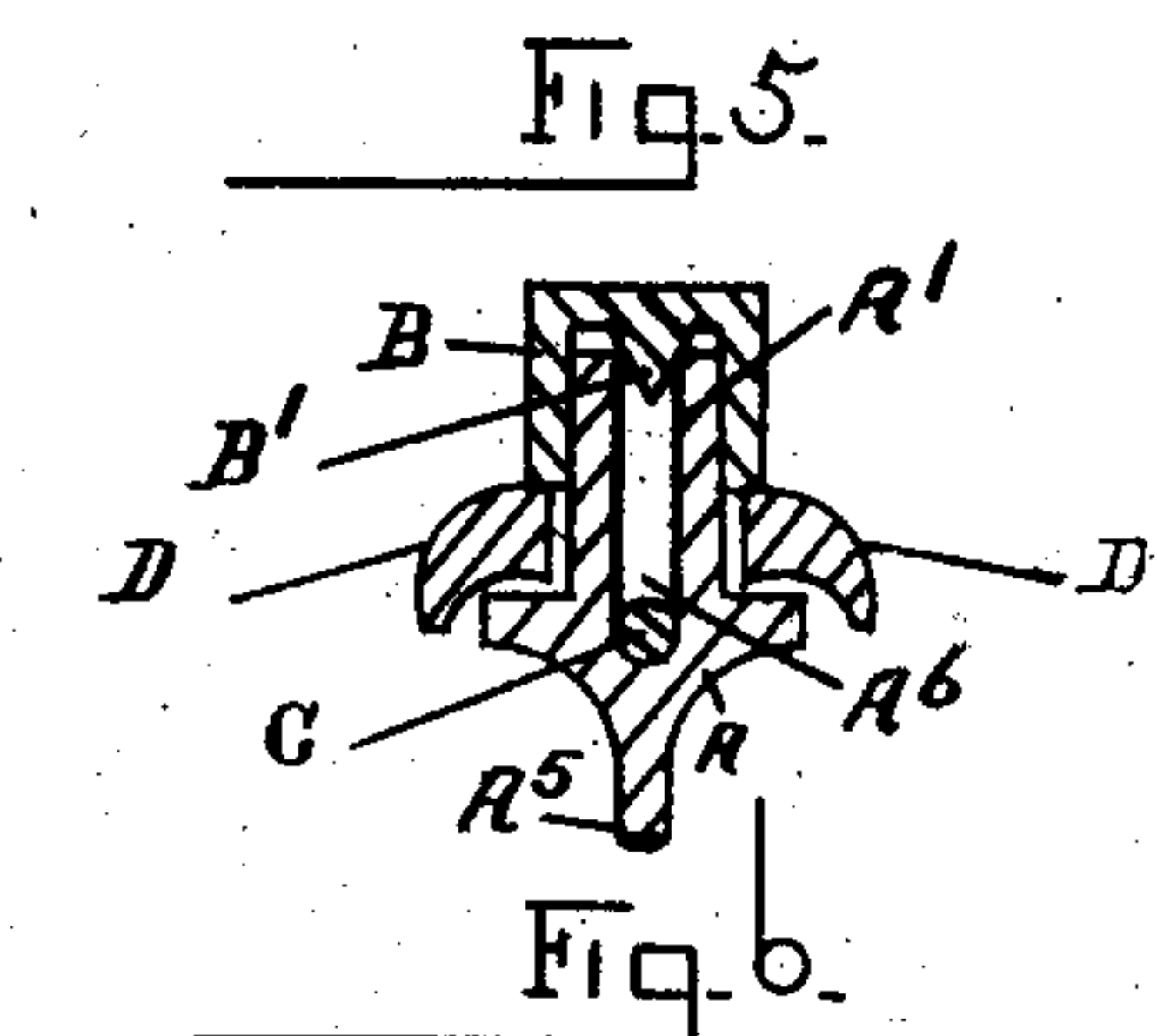
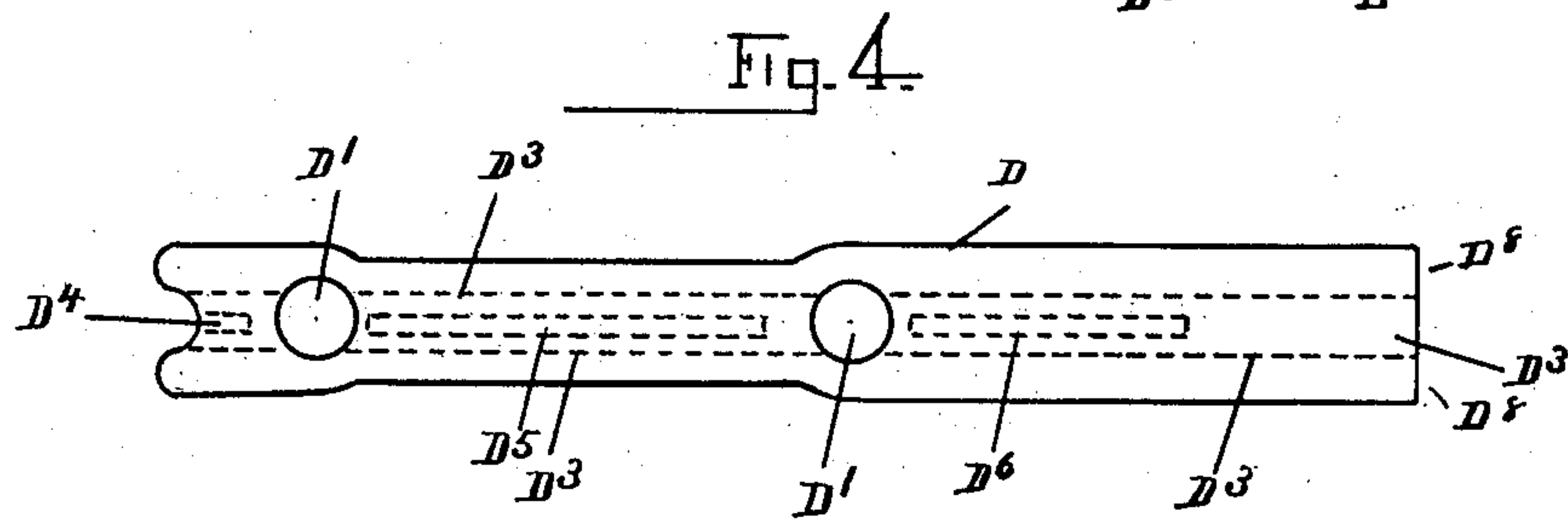
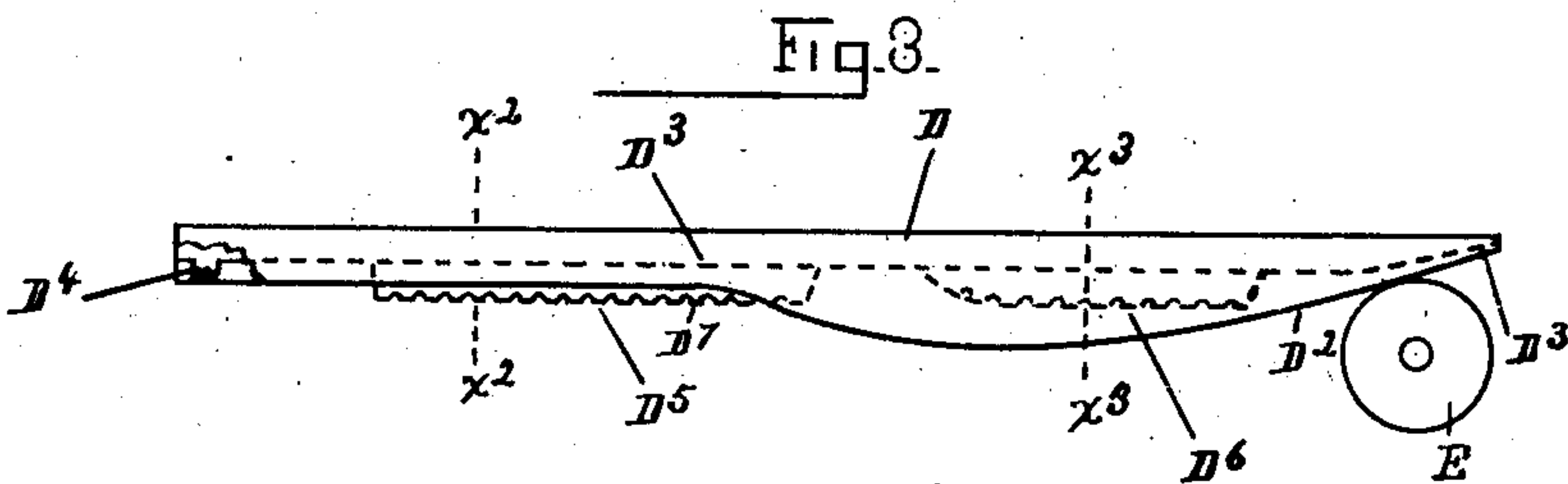
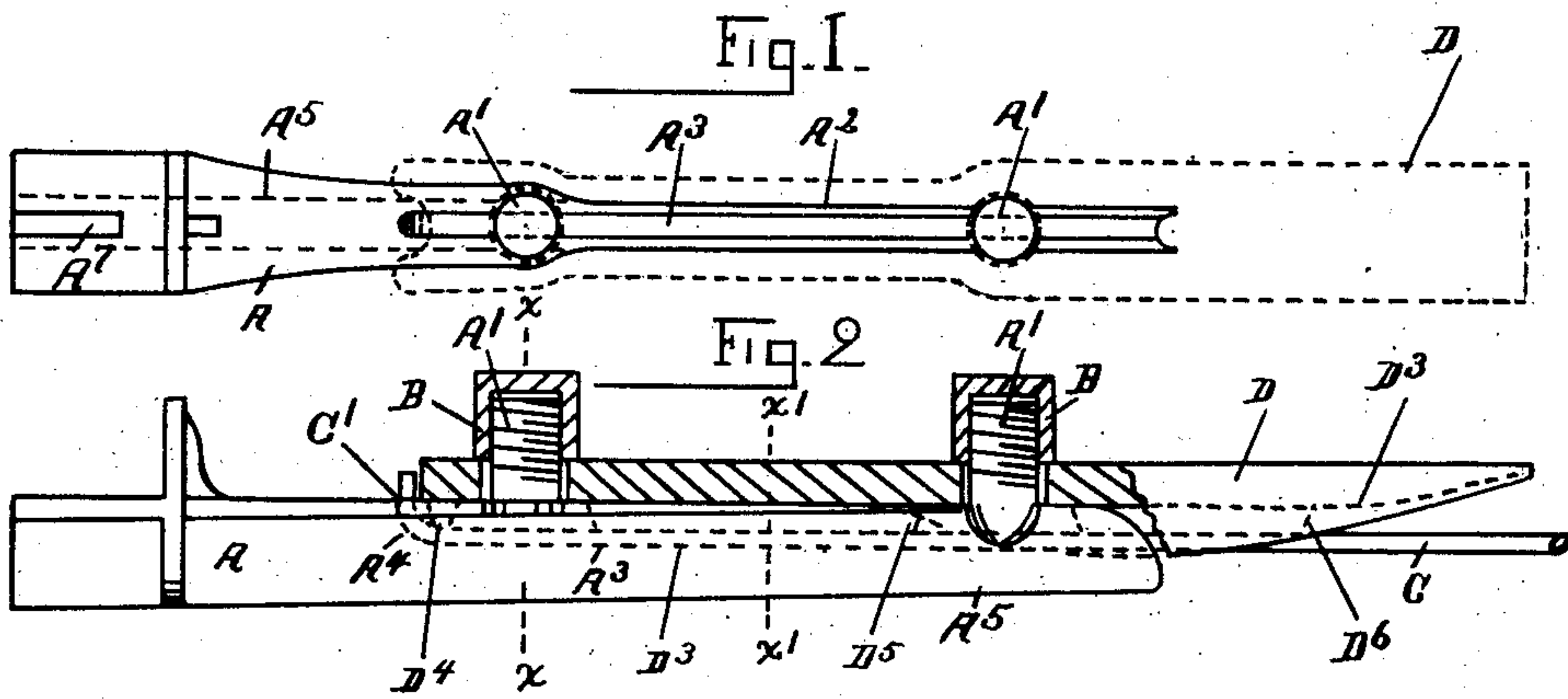
No. 741,785.

PATENTED OCT. 20, 1903.

H. L. FRITZE.  
NON-ARCING CLAMP.

APPLICATION FILED MAR. 6, 1903.

NO MODEL.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

HENRY L. FRITZE, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF THREE-FOURTHS TO C. J. HARRINGTON, OF NEW YORK, N. Y.

## NON-ARCING CLAMP.

**SPECIFICATION** forming part of Letters Patent No. 741,785, dated October 20, 1903.

Application filed March 6, 1903. Serial No. 146,471. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY L. FRITZE, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Non-Arcing Clamps, of which the following is a specification.

The object of this invention is to produce a non-arc-ing clamp which prevents trolley-wheels in overhead electric railroads from pounding and arcing.

The invention consists in an inclined clamp, forming a hood to prevent ice from gathering on the wire, and means to hold the clamp and nurlled surfaces to contact with the wire, which prevents it from slipping.

Figure 1 represents the ear or support on which the clamp is used, with the dotted lines showing the outlines of the clamp. Fig. 2 is a side view of Fig. 1, showing the ear or support, the clamp in place, and the wire locked in position. Fig. 3 shows the clamp removed from the ear or support. Fig. 4 is a top view of Fig. 3. Fig. 5 is a cross-sectional view of Fig. 2 on line  $x-x$ . Fig. 6 is a cross-sectional view of Fig. 3 on line  $x^2-x^2$ . Fig. 7 is a cross-sectional view of Fig. 2 on line  $x'-x'$ , and Fig. 8 is a cross-sectional view of Fig. 3 on line  $x^3-x^3$ .

A in the several figures represents one half of an ordinary wire ear or support employed in overhead-trolley lines for electric-motor cars. It is provided with screw-threaded lugs  $A'$ , on which the cup-nuts B are screwed to hold the clamps D against the wire C. It is also provided with a groove  $A^3$ , Figs. 1, 2, and 7, in which the wire C is held, passing through the slot of the screw-posts, as shown at  $A^6$ , Fig. 5, and terminates at  $A^4$ , Fig. 2. The flange  $A^7$  is for joining the other section or part of the support.

B', Fig. 5, is a cone-lug formed on the inner top surface of the nut B, which when forced down into the slot  $A^6$  spreads it and forms a nut-lock.

D in the several figures represents the non-arc-ing clamp. It is provided with recesses  $D'$  for the reception of the screw-posts  $A'$  and a longitudinal groove or grooves  $D^3$ , Figs. 2, 3, 4, 6, 7, and 8, in which the flanges  $A^2$  of the ear or support rest, as shown in Fig. 7,

which prevents the flanges  $A^2$  from spreading and also rain or snow from contacting with the wire C. In the groove  $D^3$  are located three lugs  $D^4$ ,  $D^5$ , and  $D^6$ , Figs. 2, 3, 4, 6, 7, and 8, provided with nurlled contact-surfaces  $D^7$ , which by aid of the nuts B are forced against the wire C and which, in conjunction with the bent wire at  $C'$ , Fig. 2, prevent it from working out of the groove. This clamp is provided with two curved and inclined tracks or surfaces  $D^8$ , Figs. 4 and 8, against which the flanges of the grooved trolley-wheel run, as the wheel leaves the wire C to cross the ear or support A. These inclined surfaces  $D^8$  are so graduated, as shown by side view at  $D^2$  in Fig. 3, that no jar or blow is given to the wheel E as it leaves the wire and contacts with the support ear or surface  $A^5$ . The cup-nut B, Fig. 5, prevents snow and ice from forming in the slot  $A^6$ .

I do not limit my invention to a single clamp, as they may be combined with the ears A, having two or more diverging arms, which are employed at switches or crossings. Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The ear or support A having the threaded posts  $A'$  and groove  $A^3$ , in combination with the wire C and clamp D provided with the groove  $D^3$  as set forth.

2. The ear or support A having the threaded post  $A'$  and groove  $A^3$ , in combination with the clamp D having groove  $D^3$  in which the flanges  $A^2$  of the support rest and the wire C as set forth.

3. The ear or support A having the threaded post  $A'$  and groove  $A^3$ , in combination with the wire C, clamp D provided with the groove  $D^3$  and inclined track  $D^8$  as set forth.

4. The ear or support A having threaded lugs  $A'$  and slot  $A^6$  and the nut B provided with cone-lug B', in combination with the wire C and clamp D as set forth.

Signed at New York city, in the county of New York and State of New York, this 3d day of February, A. D. 1903.

HENRY L. FRITZE.

Witnesses:

E. T. THOMAS,  
E. R. HUDDERS.