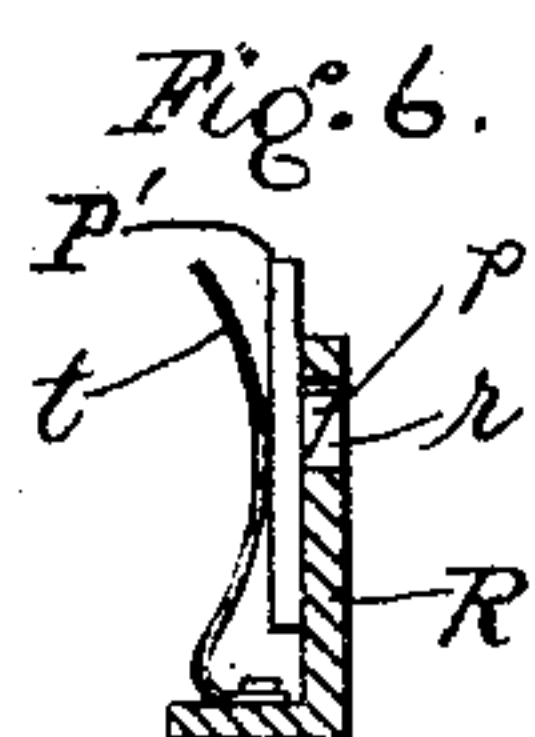
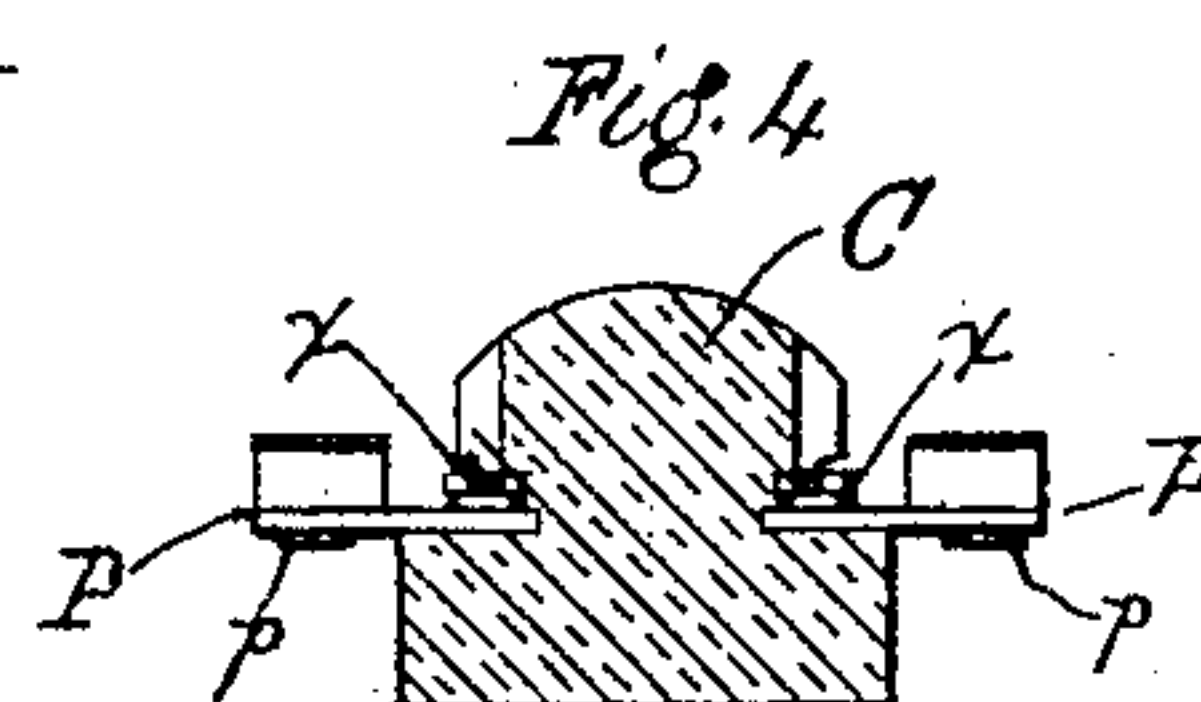
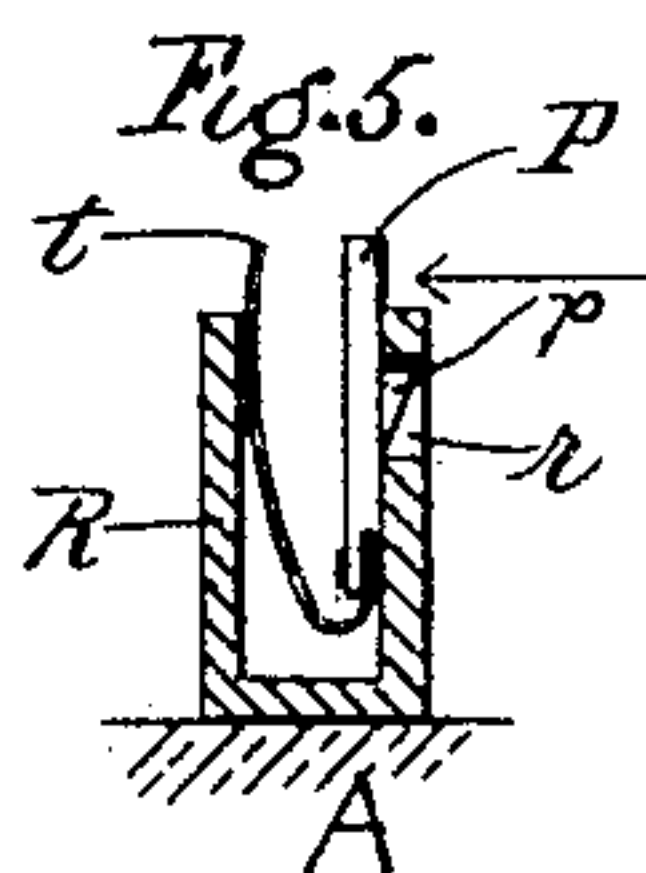
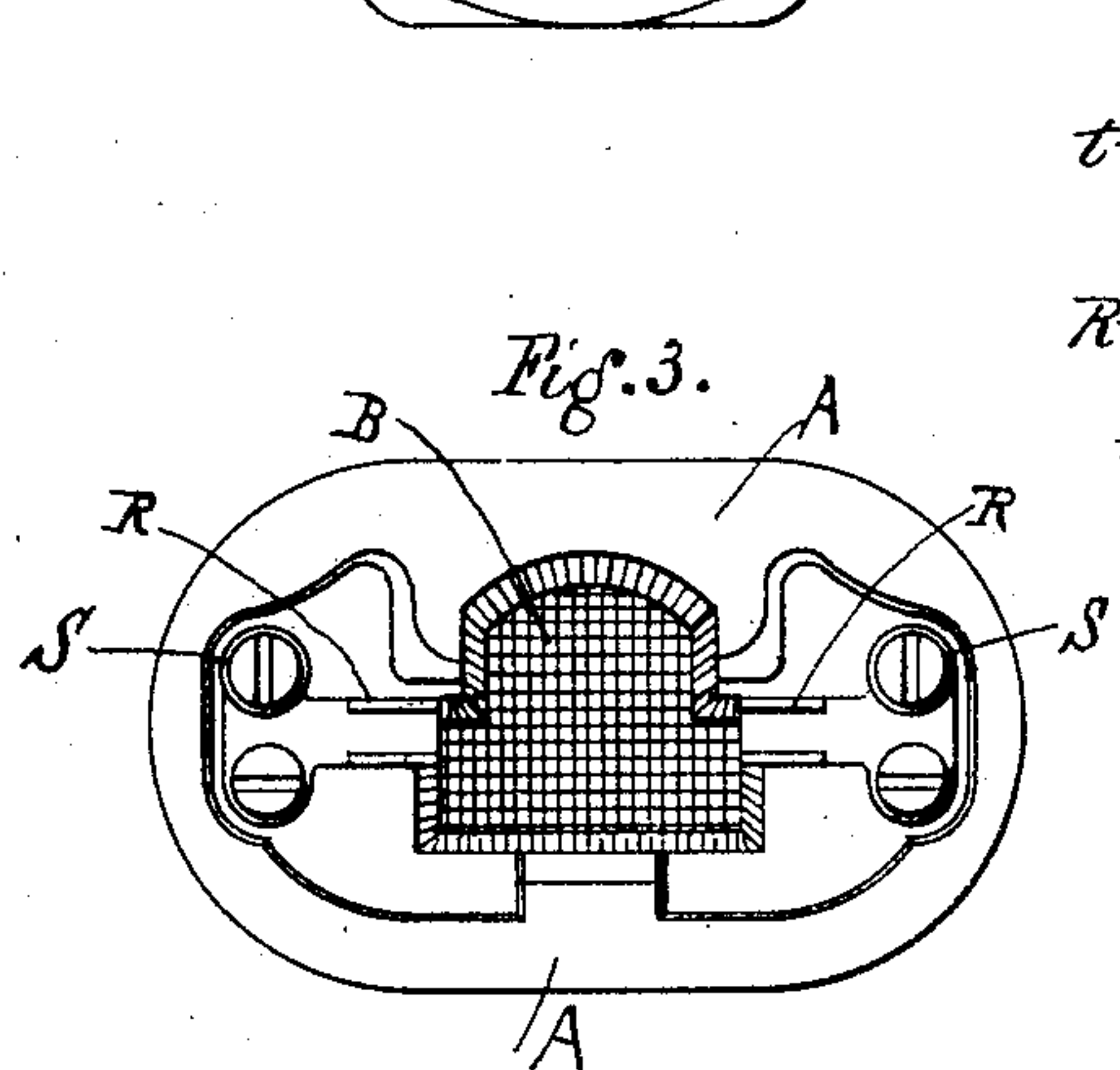
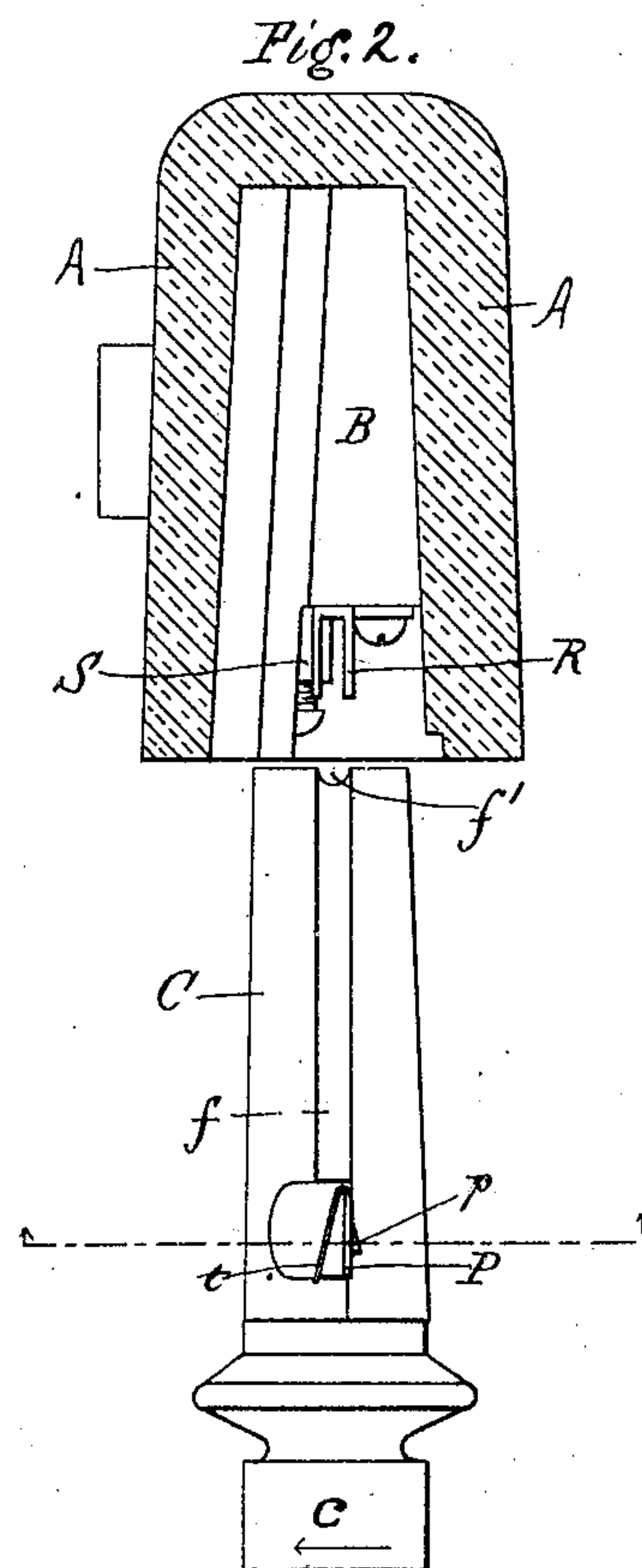
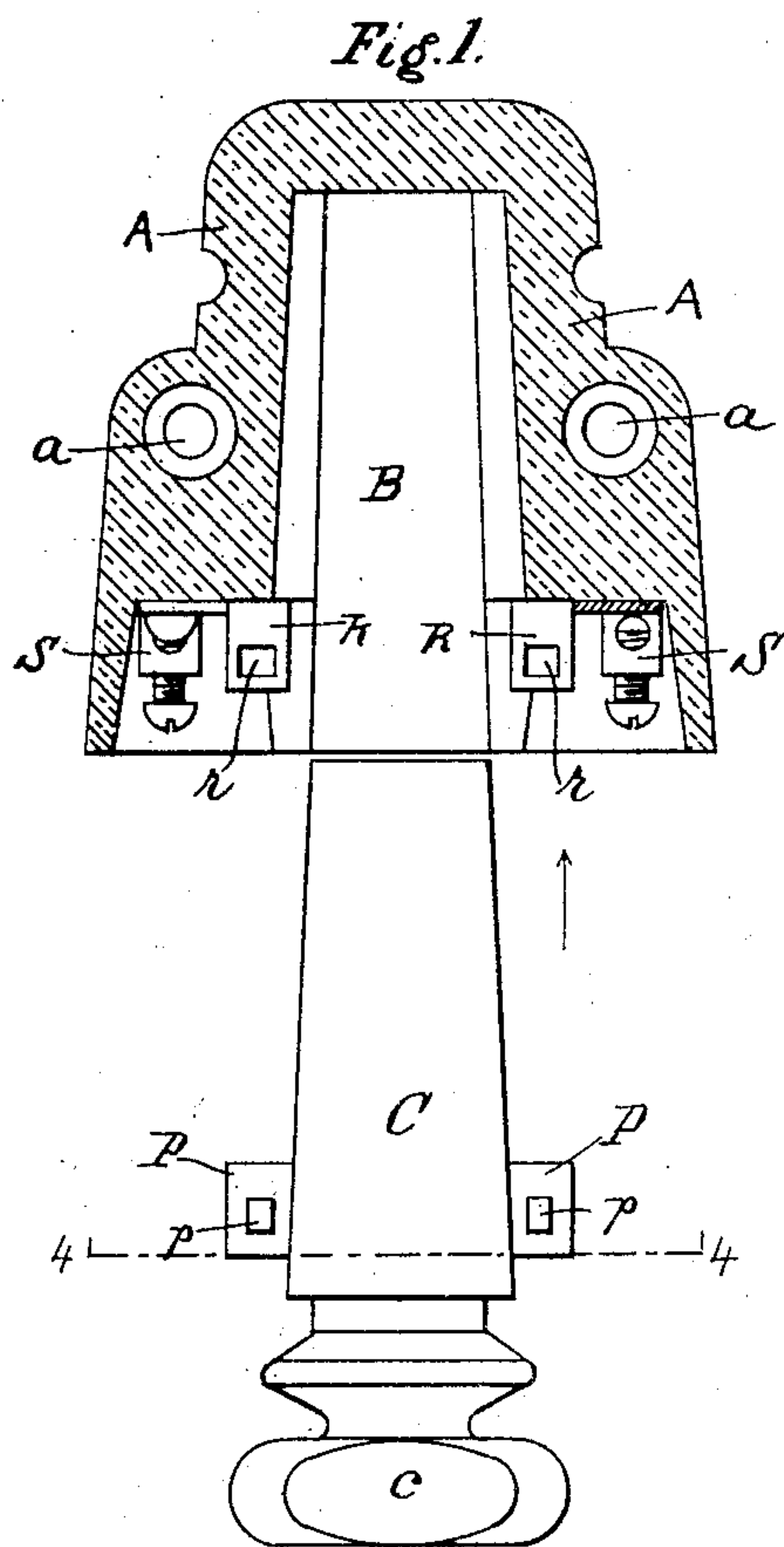


No. 785,306.

PATENTED MAR. 21. 1905.

G. W. GOODRIDGE.
ELECTRICAL FUSE BOX.
APPLICATION FILED JUNE 16, 1904.



WITNESSES

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GILBERT W. GOODRIDGE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO
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CORPORATION OF CONNECTICUT.

ELECTRICAL FUSE-BOX.

SPECIFICATION forming part of Letters Patent No. 785,306, dated March 21, 1905.

Application filed June 16, 1904. Serial No. 212,788.

To all whom it may concern:

Be it known that I, GILBERT W. GOODRIDGE, a citizen of the United States of America, residing in Bridgeport, in the county of Fairfield, State of Connecticut, have invented an Improved Electrical Fuse-Box, of which the following is a specification.

My invention relates to improvements in the construction of fuse-boxes for electric lines, more particularly high-tension transmission-lines employing transformers.

In the accompanying drawings, Figure 1 is a vertical section through the box with the plug which carries the fuse-wire shown as about to be inserted. Fig. 2 is a similar vertical section at right angles to the section Fig. 1. Fig. 3 is an inverted plan view of the box without its plug. Fig. 4 is a transverse section through the plug on the line 4-4, Fig. 1. Fig. 5 is an enlarged sectional view of a detail, and Fig. 6 is a similar view of a modification.

I prefer to make the box A itself of porcelain, although other suitable insulating material may be employed. It is provided with a central longitudinal chamber B open at one end (the lower end) to receive the fuse-carrying plug C, and with two transverse openings *a a*, Fig. 1, for the passage of the bolts or screws by which the box is to be secured in position. I prefer to make the chamber B in the box tapering, Figs. 1 and 2, and of the cross-sectional form indicated by the shading in Fig. 3, and to make the plug, which may also be of porcelain, of a similar but smaller cross-section and likewise tapering, Figs. 1, 2, and 4. This cross-section may be described as T-shaped, and in the angles of this T I form longitudinal grooves *f*, Fig. 2, to receive the fuse-wire, a connecting-groove *f'* being formed across the extreme end of the plug. The ends of the fuse-wire are connected up by binding-screws *x*, Fig. 4, to metallic terminal plates P P, carried by the insulating-body of the plug. These plates project laterally beyond the body of the plug, as shown in Fig. 4, so that they may engage and

make contact with terminal plates R R, mounted in recessed parts of the box A, with connected binding-posts SS for the line-wires.

The plates P and R are so constructed and arranged that when brought together by the insertion of the plug they not only electrically connect the line-terminals through the fuse-wire, but also serve to mechanically lock the plug in the box by the mere endwise insertion of the plug. For this purpose I prefer to make each of the plates R R double or jaw-shaped, with the jaws open toward the open end of the box, so as to receive between them the corresponding plate P on the plug by the simple endwise or longitudinal insertion of the plug C into the box. The space between the jaws of each contact-plate R is greater than the thickness of the plate P, however, and upon one of these plates I form a beveled projection and on the other an opening or recess, and I provide also a spring to force the projection into the opening to lock the two together. In the present instance I have shown the beveled latch *p* on the plate P and the opening *r* in one of the jaws of the plate R, while the spring *t* is arranged to press against the other jaw to normally maintain the parts locked, as shown in Fig. 5. In Fig. 5 I have shown the spring *t* as carried by the plate P, while in Fig. 6 I have shown the spring *t'* as carried by the plate R'. In this latter case the plate R' will not need to have two jaws. While the locking devices (owing to the beveling on the forward side of the projections *p*) are self-engaging by the simple endwise insertion of the plug, they securely hold the latter in position, so that it cannot be jarred out; but by taking hold of the knob *c* of the plug and pressing the latter sidewise or tilting it in the direction of the arrow, Fig. 2, the plates P will be pressed in the direction of the arrow, Fig. 5, to unlatch them from the plate R, and so permit the plug to be pulled endwise out of the box. The play of the plug in the chamber B is sufficient to permit the sidewise or tilting movement of the plug to unlock it.

I claim as my invention—

1. The combination of the insulating-body of a fuse-box having contact-plates with a fuse-plug adapted to be inserted endwise into the box and provided with contact-plates to engage those on the box and means to latch them together by the endwise insertion of the plug into the box and springs to hold them latched.
2. The combination of the insulating-body of a fuse-box having contact-plates provided with jaws open toward the open end of the box with a fuse-plug adapted to be inserted endwise into the box and provided with contact-plates to enter the open jaws of the box-plates by the endwise insertion of the plug and means to latch and lock the plates together by said insertion.
3. The combination of the insulating-body of a fuse-box having contact-plates, with a fuse-plug adapted to be inserted endwise into the box and provided with contact-plates to engage those on the box, and means to latch and lock them together by the endwise insertion of the plug and adapted to be unlocked by the tilting of the plug.
4. The combination of the insulating-body of a fuse-box and an insertible plug with en-

gaging contact-plates on the two parts, one set of contact-plates having projections, and the other having openings to form locking engagements, and springs to hold them in engagement.

5. The combination of the insulating-body of a fuse-box with an attachable part, the two parts having engaging plates, one set of plates having projections and the other having openings to form locking engagements, and springs to hold them in engagement.

6. The combination of the insulating-body of a fuse-box, having engaging plates provided with open jaws, with an attachable insulating part provided with engaging plates to enter the open jaws of the plates on the body part by the endwise insertion of the attachable part, the plates on the two parts having projections and openings to form locking engagements, and springs to hold them in engagement.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GILBERT W. GOODRIDGE.

Witnesses:

J. H. BARKER,
N. W. HARDER.