

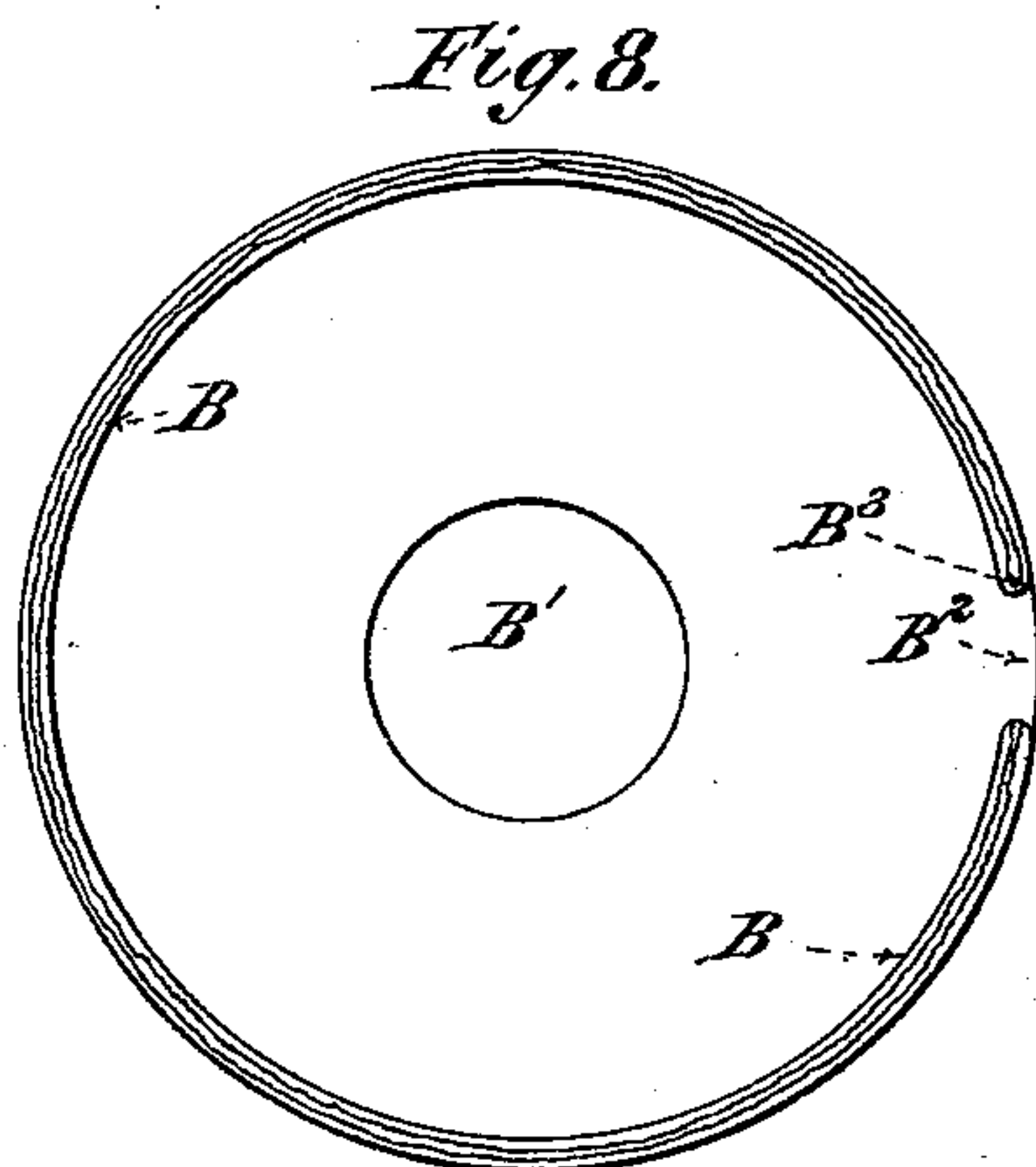
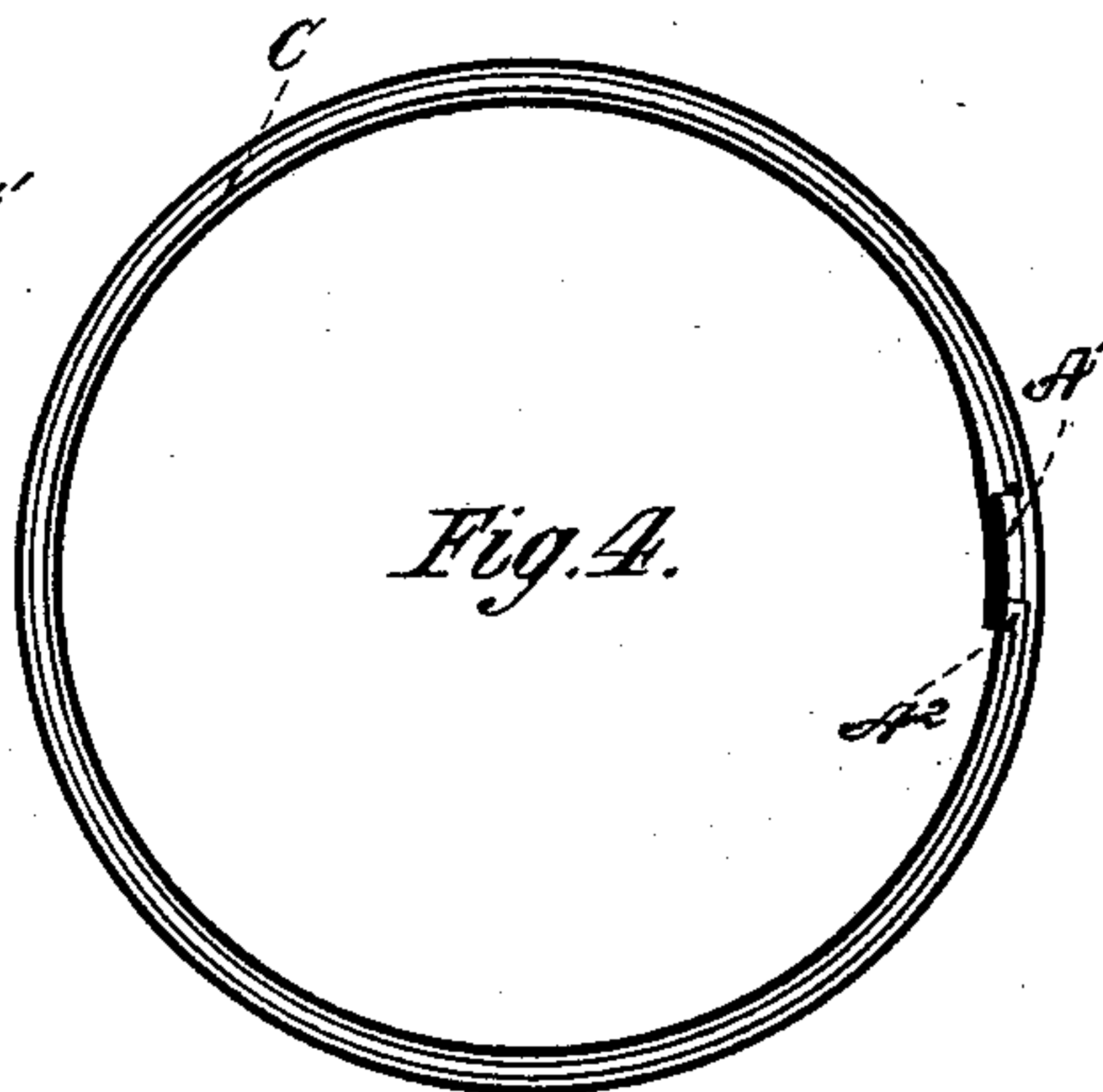
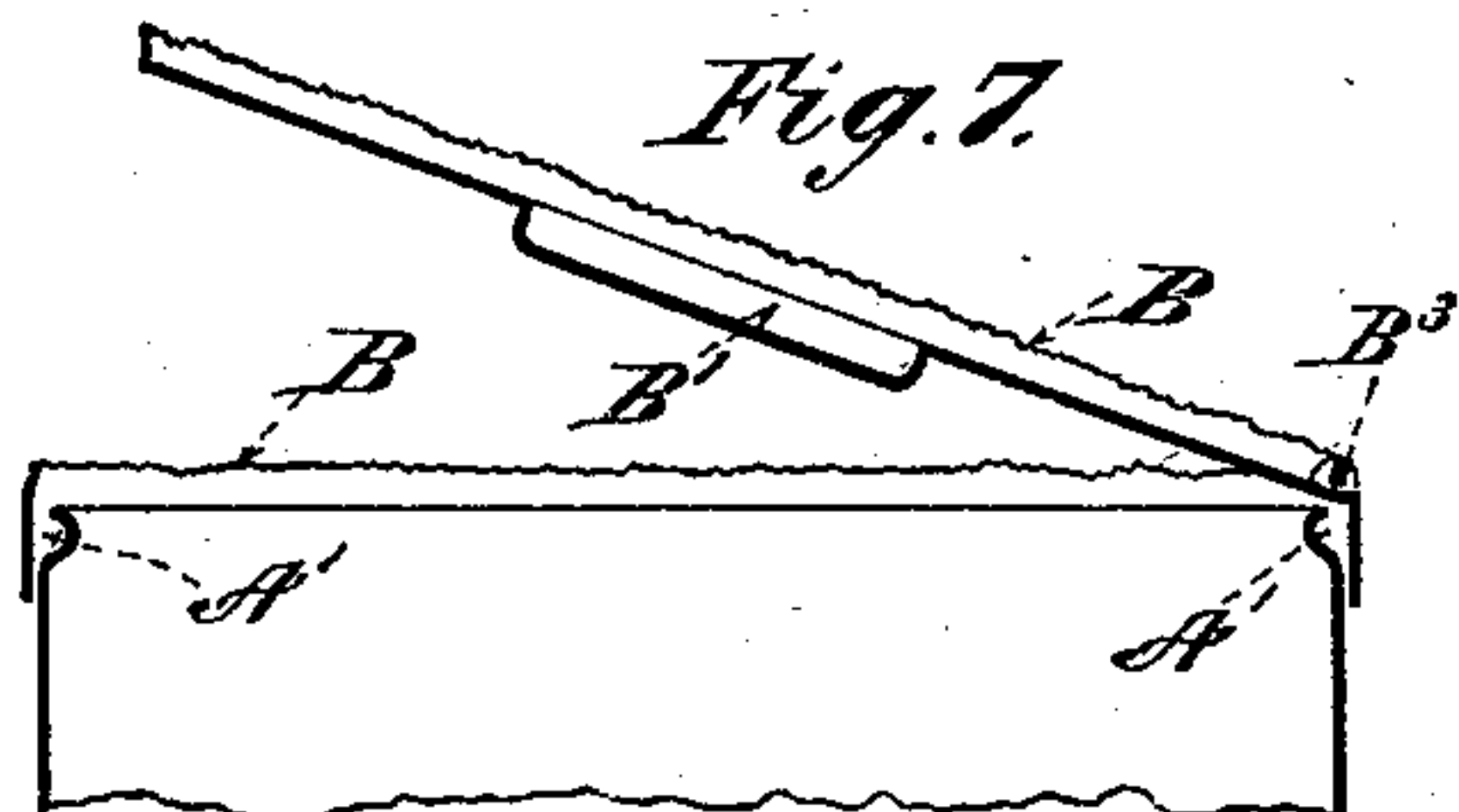
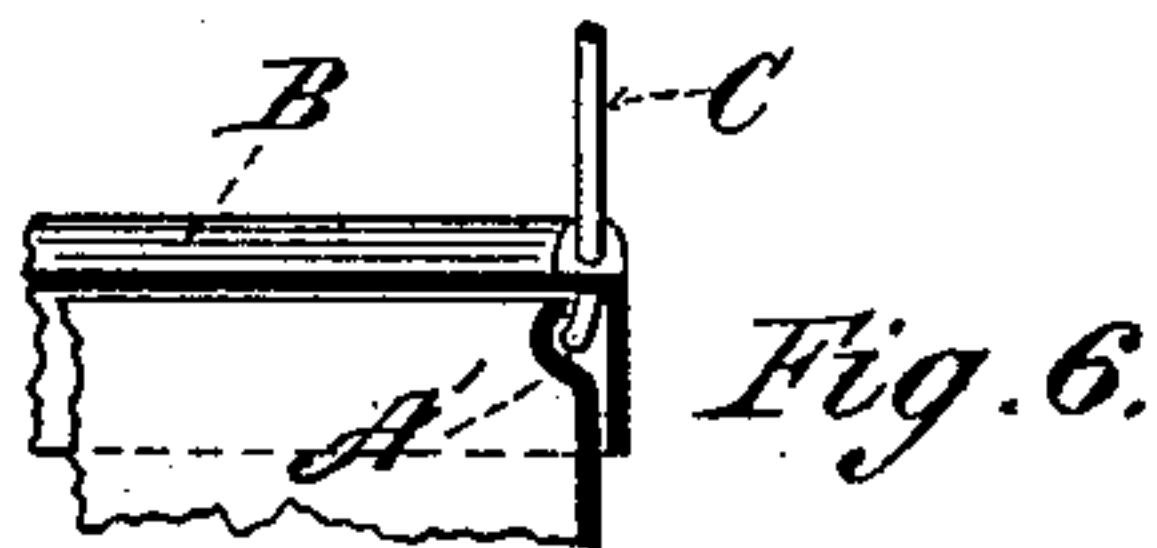
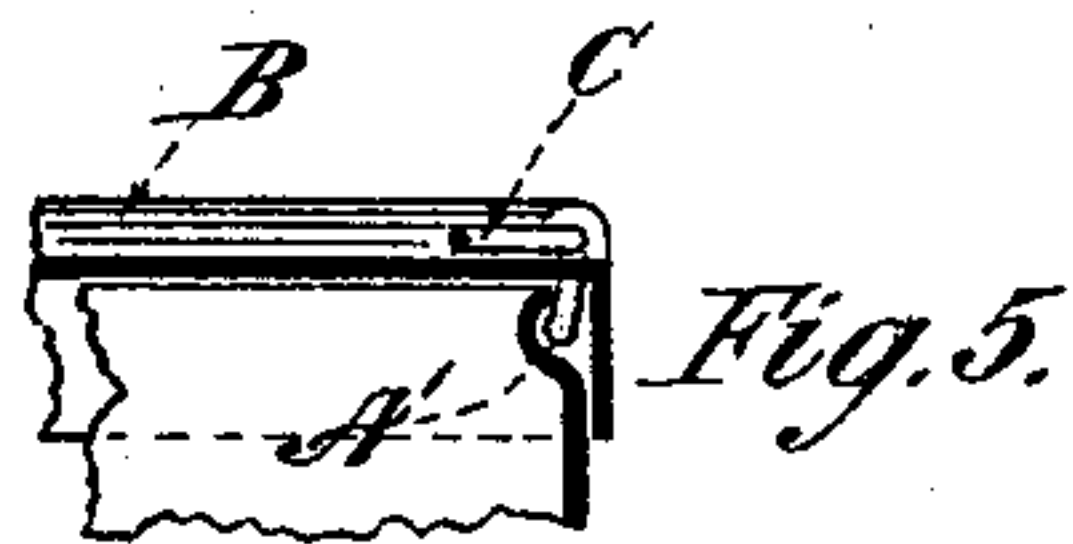
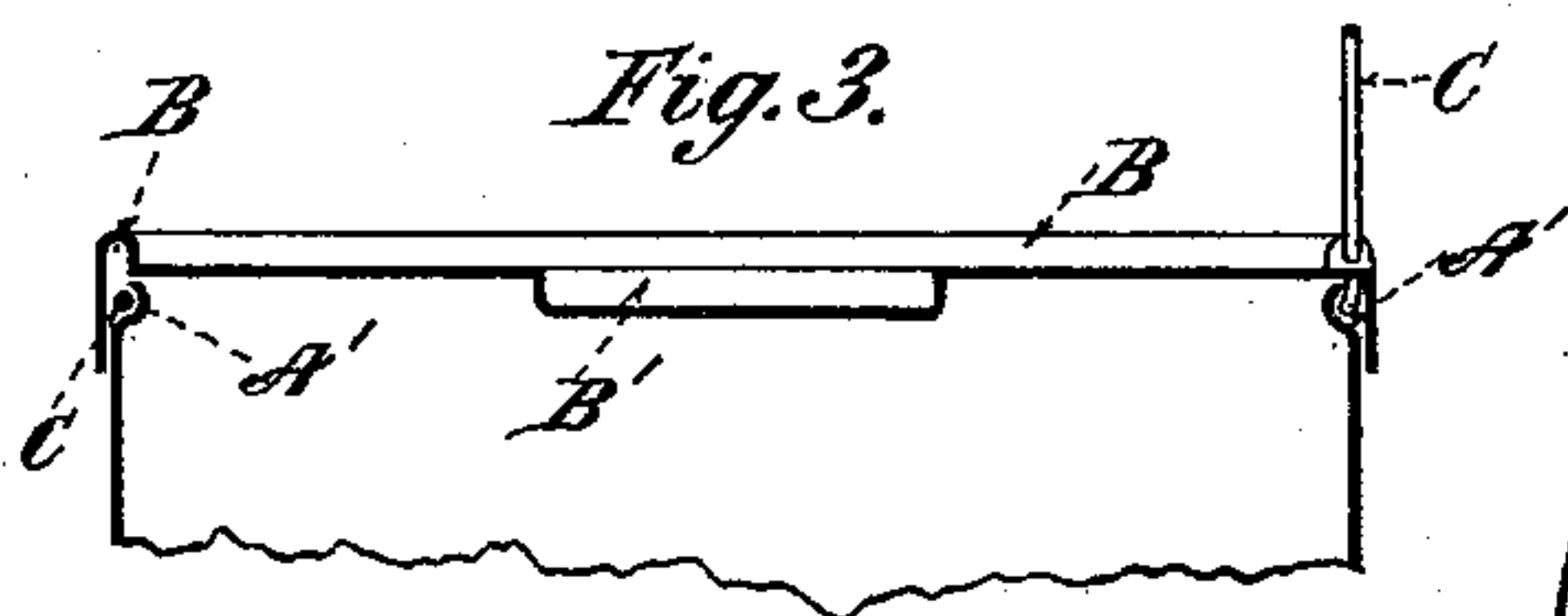
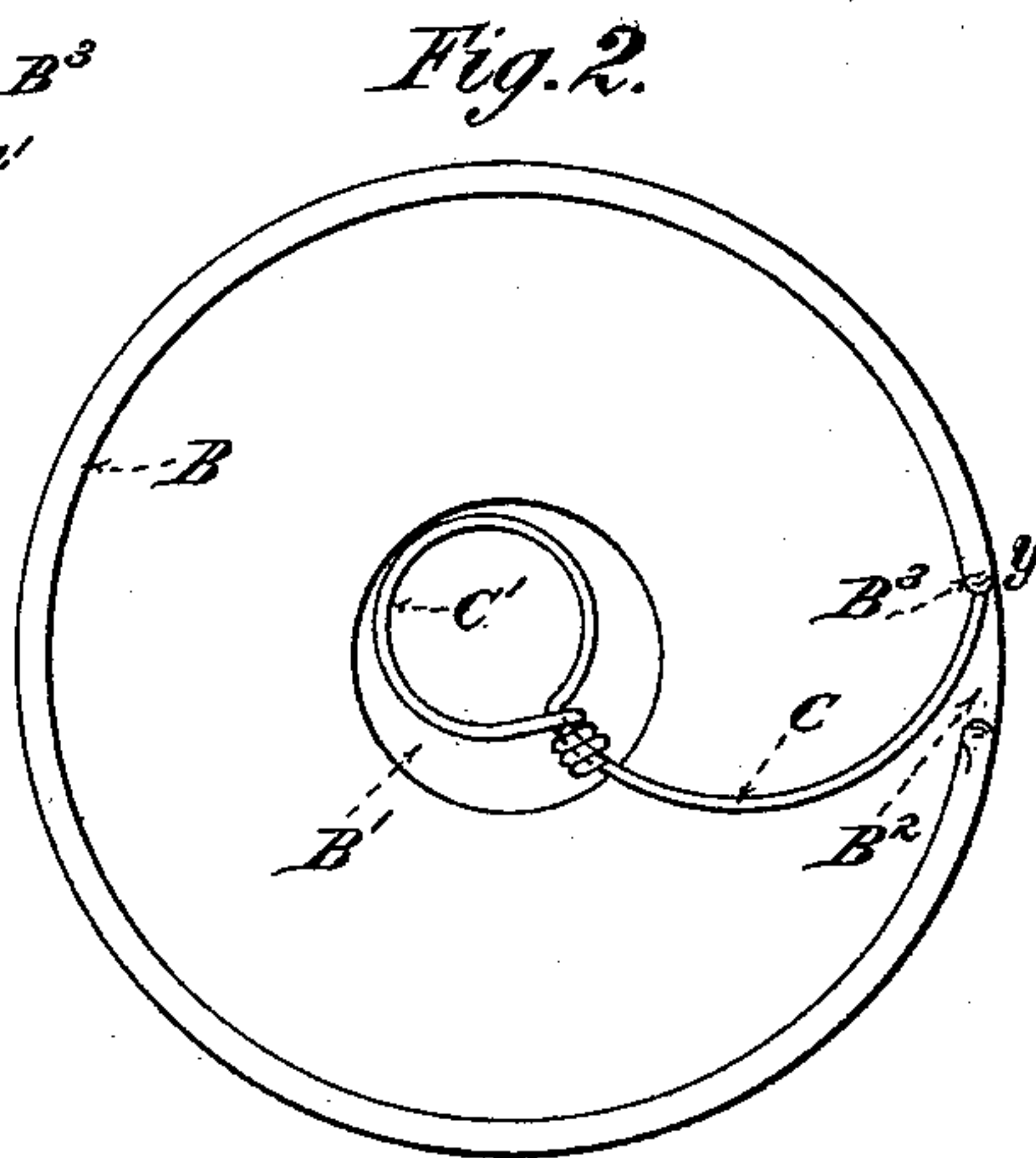
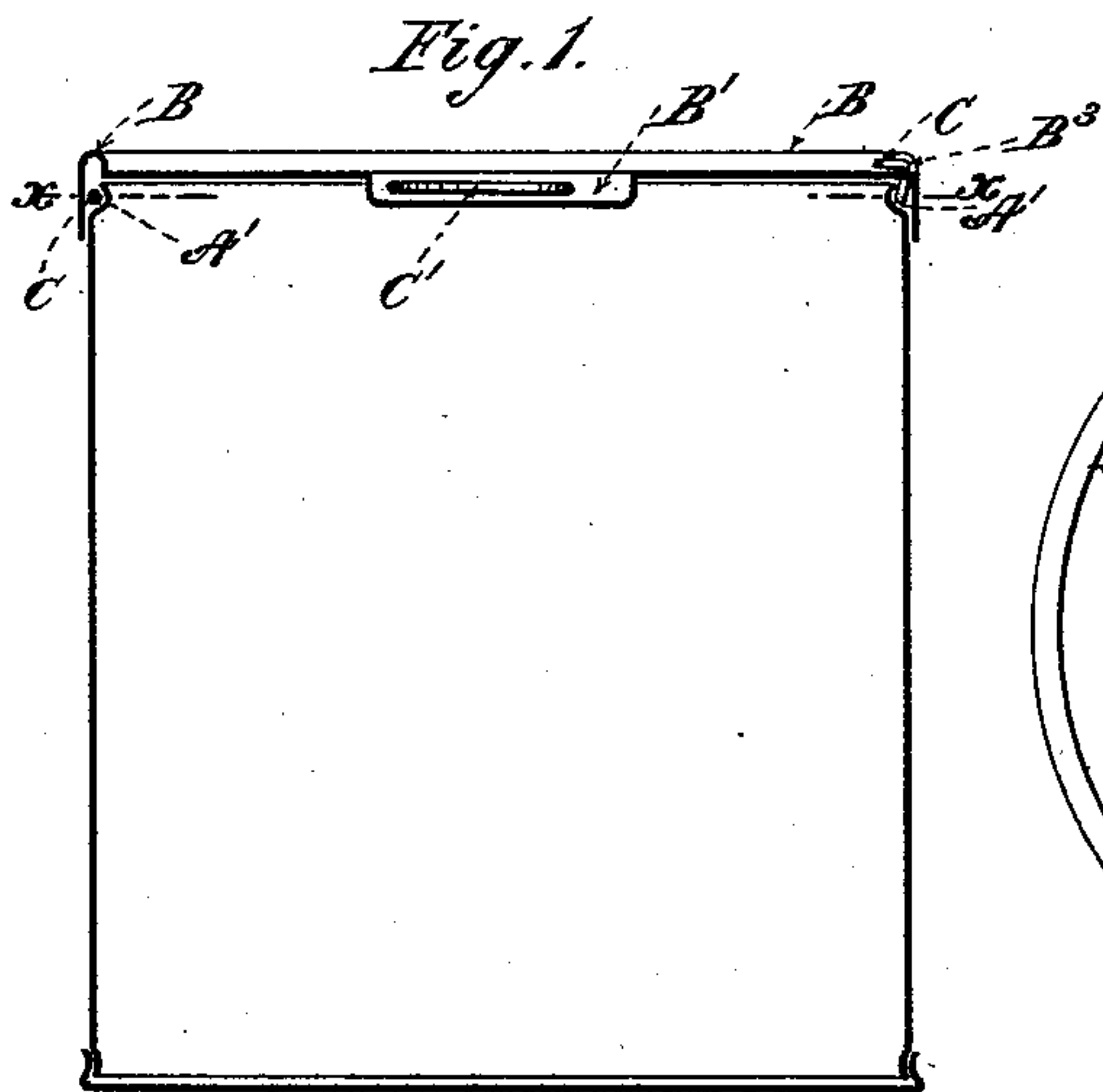
(No Model.)

W. MERTON.

METAL CANISTER AND CASE TO FACILITATE ITS OPENING.

No. 540,507.

Patented June 4, 1895.



Witnesses.

Dennis Cumber,
Albert Everett.

Inventor

William Merton.
By James L. Norris,
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM MERTON, OF HILL END, ASSIGNOR TO THE PULL WIRE TIN OPENING COMPANY, LIMITED, OF SYDNEY, NEW SOUTH WALES.

METAL CANISTER AND CASE TO FACILITATE ITS OPENING.

SPECIFICATION forming part of Letters Patent No. 540,507, dated June 4, 1895.

Application filed December 28, 1894. Serial No. 533,204. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MERTON, watchmaker, a subject of the Queen of Great Britain, residing at Hill End, in the British Colony of New South Wales, have invented a new and useful Improvement in Metal Canisters and Cases to Facilitate their Opening, of which the following is a specification.

This invention relates to certain kinds of canisters and cases which are made of tinned iron or soft metal and are hermetically soldered so as to preserve their contents from contact with the atmosphere. While specially useful for canisters and preserve cans and small boxes for food supplies this invention is equally serviceable for packing cases for merchandise, &c. Many devices have hitherto been proposed for producing what has been termed a "self-opening tin" or case, namely, a canister or case which contains within itself the means or devices by which its top or side or one end may be cut or nearly cut off to allow access to its contents. Among such devices have been a number in which a wire held in or on the can is pulled or used to cut through the metal of the tin. Now this improvement refers particularly to the way in which such a cutting wire is held on the body of the canister, passes through the end of a bulging on the end or face to be removed and is looped and is then bedded in a recess for said loop in said end or face; but in order that this invention may be clearly understood reference will now be made to the drawings herewith, in which—

Figures 1 and 2 are sectional and plan views, respectively, of a canister in its packed or "closed down" position ready for labeling. Fig. 3 is a similar view to Fig. 1 of the canister in the act of being opened by the cutting-wire. Fig. 4 is a section of the canister on line *xx*, Fig. 1. Figs. 5 and 6 are views of enlarged joints in Figs. 1 and 3 above point *y* of Fig. 2. Figs. 7 and 8 are sectional elevation and plan, respectively, of the canister with the wire cutting down and the lid thus formed in Fig. 8 ready for uplifting and in Fig. 7 partially uplifted.

The canisters or cases are made with a groove or recess *A'* in the outer face of the body at the highest point possible or in other

words the shell of the canisters or cases terminate in an external groove *A'*. The cover is a rim or flanged lid which has a depression or recess *B'* in its shell or disk at the top and has a bulging *B* at the periphery or where the flange joins the top such bulging not quite encircling or running around such periphery but leaving an unbulged part *B²* of small dimension. Through one end *B³* of the bulging *B* is a hole or perforation. A wire *C* has its end soldered to the canister or case in the recess or groove *A'* at point *A²* preferably where the lapping of the body of said canister or case takes place or said wire *C* might be passed through a hole in the groove *A'* at same point into the canister and be knotted or looped on the inside so that it cannot be easily pulled out again. The wire *C* is then passed around the tin in groove or recess *A'* and threaded through hole in end *B³* of bulging *B'* of the flanged or rim lid and the lid is turned around so that wire *C* will be tightened in groove *A'*. The canister or case is now ready for soldering around the edge of the rim or flange of the cover and at the perforation in end *B³* which being done the loop or ring *C'* is made on the end of wire *C* and is placed in depression or recess *B'* and retained therein by a label over the end of the canister or case which is the bottom during the filling and now becomes the top.

To open the packed canister or case so prepared it is only necessary to break or tear through the label above the recess *B'* and to pull upon the wire *C* by means of loop or ring *C'*. In the case of a canister of preserves or an easily handled case said loop *C'* is conveniently placed over a nail or peg and the canister is pulled away from said peg. The pull upon the wire causes said wire to cut the top of the metal through at the bulging *B* (where said bulging causes it to be thinnest and weakest) as shown in Figs. 7 and 8 and then to pull away from the solder or fastening at *A²* clear of the canister leaving a very small part *B²* of the lid to form a hinge for said lid if desired.

This improvement is shown and described with reference to a circular canister but it may be used for other shaped containers or cases of small and large sizes as for sardine

boxes and for the zinc linings of merchandise cases, &c. The wire shown also is a circular wire but it may be of other section say of triangular section.

5 I am aware that a self-opening can has been provided with a cover having an annular channel entirely around its outer portion, a wire seated in and carried around said channel and then extended through a perforation
10 therein and provided with a looped operating end, and a flanged margin being formed on the top of the can-body and set up into said channel of the cover to protect and support the wire. I am also aware that it is old to
15 provide a nearly annular slot in the top or cover of a can, leaving a portion of the cover intact, between the ends of the nearly annular slot, to serve as a hinge, and then soldering over the said slot an annular sheet-metal
20 strip having one end free so that the said strip can be detached to release the cover and thereby open the can. I am also aware that the looped or ring end of a tearing wire has been temporarily confined in an annular grooved
25 portion of a can cover by means of a retaining clip having one end secured to the cover. It is also old to solder a flanged cover onto one end of a can body having a circumferential groove in which is inclosed a tearing-wire
30 surrounding the can body and adapted to be drawn upon in such manner as to break the line of solder and open the can without breaking or tearing its cover. These forms of construction I do not claim and I would have it
35 understood that my invention does not apply thereto, but it is restricted to an annular

groove or recess in the outer side of one end of the can-body, a wire fastened at one end in said groove or recess of the can-body and received also in a nearly annular recess or
40 bulging on the periphery of the can cover which is provided, further, with a central circular depression, one end of the wire being passed out through a perforation in the end of the annular recess of the cover and hav-
45 ing its said end terminating in a loop that is received in the central circular depression of the cover and retained therein by a label.

Having now particularly described and explained the nature of my said invention and
50 in what manner the same is to be performed, I declare that what I claim is—

The combination with the can body having in the outer side of one end the annular groove or recess A' and the wire C secured to
55 the can body at a point in said groove, of the can cover having in its center the circular depression B' and provided at the periphery with the nearly annular guide recess B in which the wire C is received, the said wire being car-
60 ried around in said recess and out through a perforation in one end thereof and terminating at its outer end in a loop or ring C' that is inserted into the central circular depression B' of the can cover and secured therein by a
65 label, substantially as shown and described.

Dated this 26th day of November, 1894.

WM. MERTON.

Witnesses:

FRED WALSH,

THOMAS JAMES WARD.