

(No Model.)

D. F. MACCARTHY.
SEAL.

No. 546,619.

Patented Sept. 17, 1895.

Fig. 1

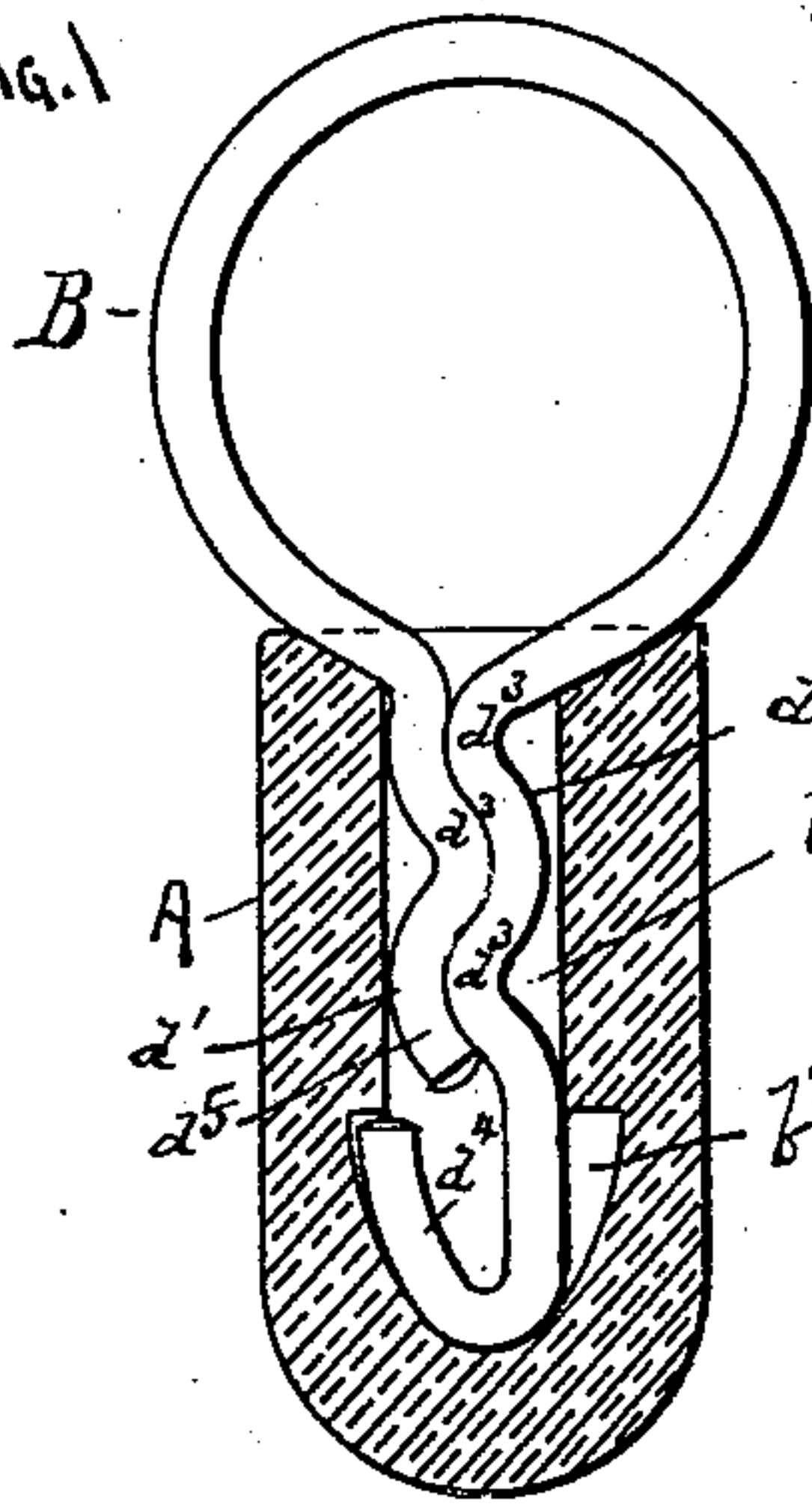


Fig. 2

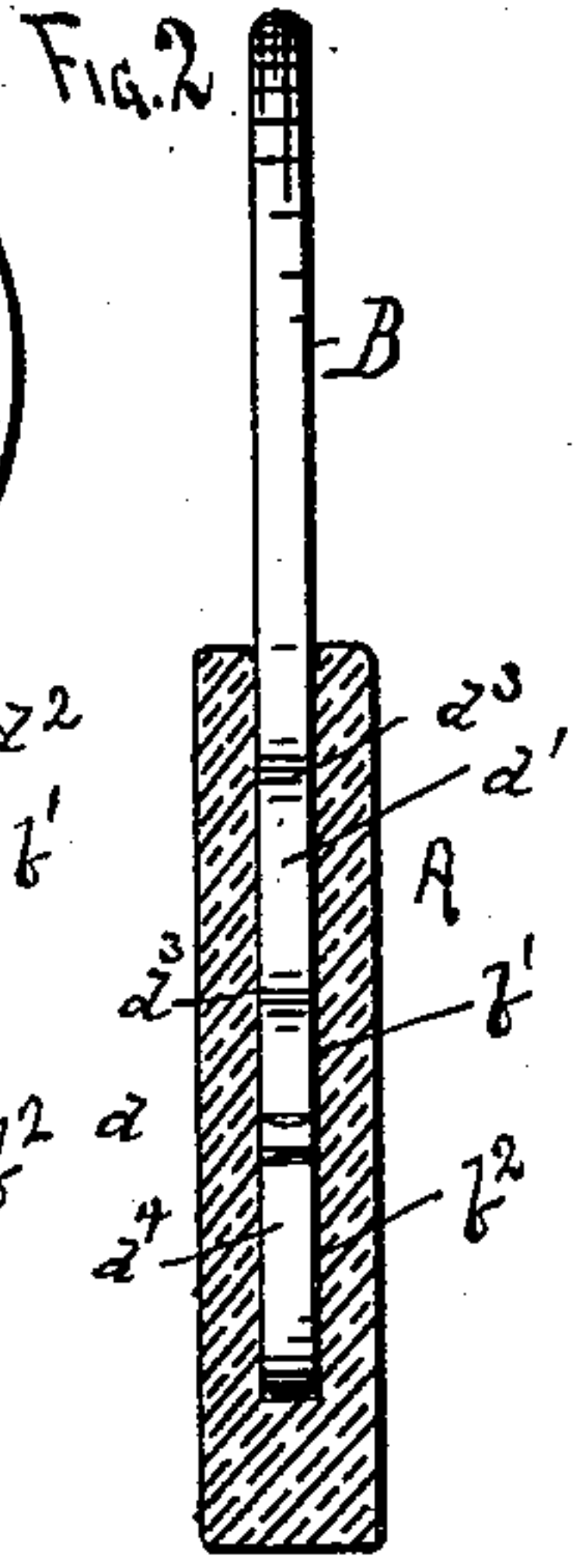


Fig. 4

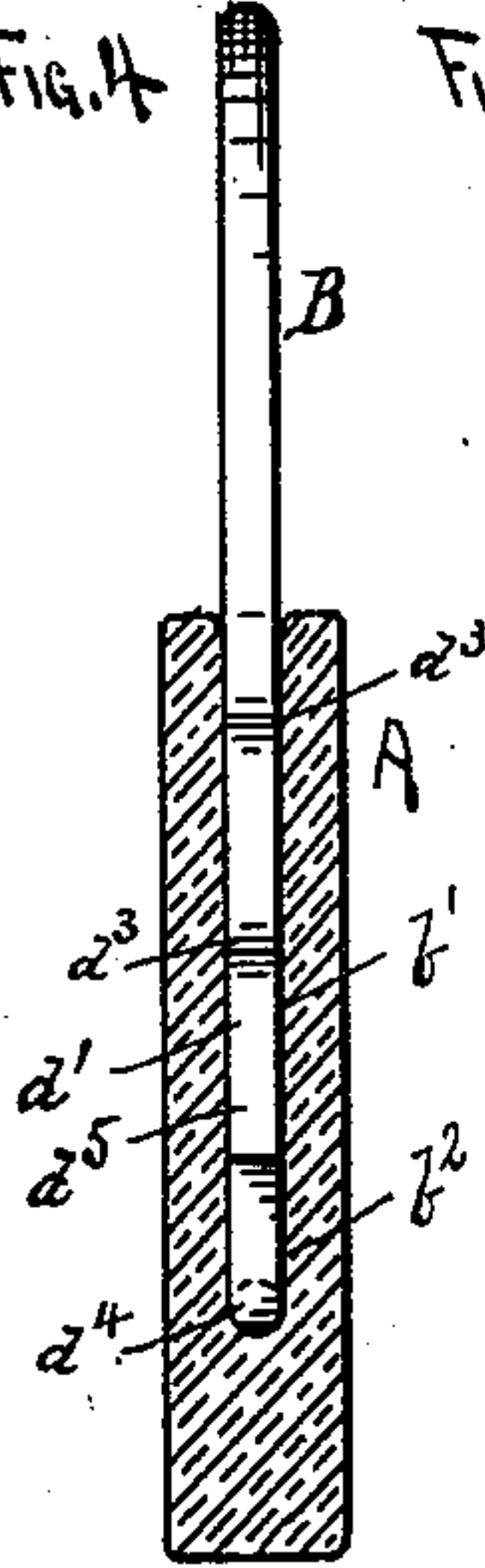


Fig. 3

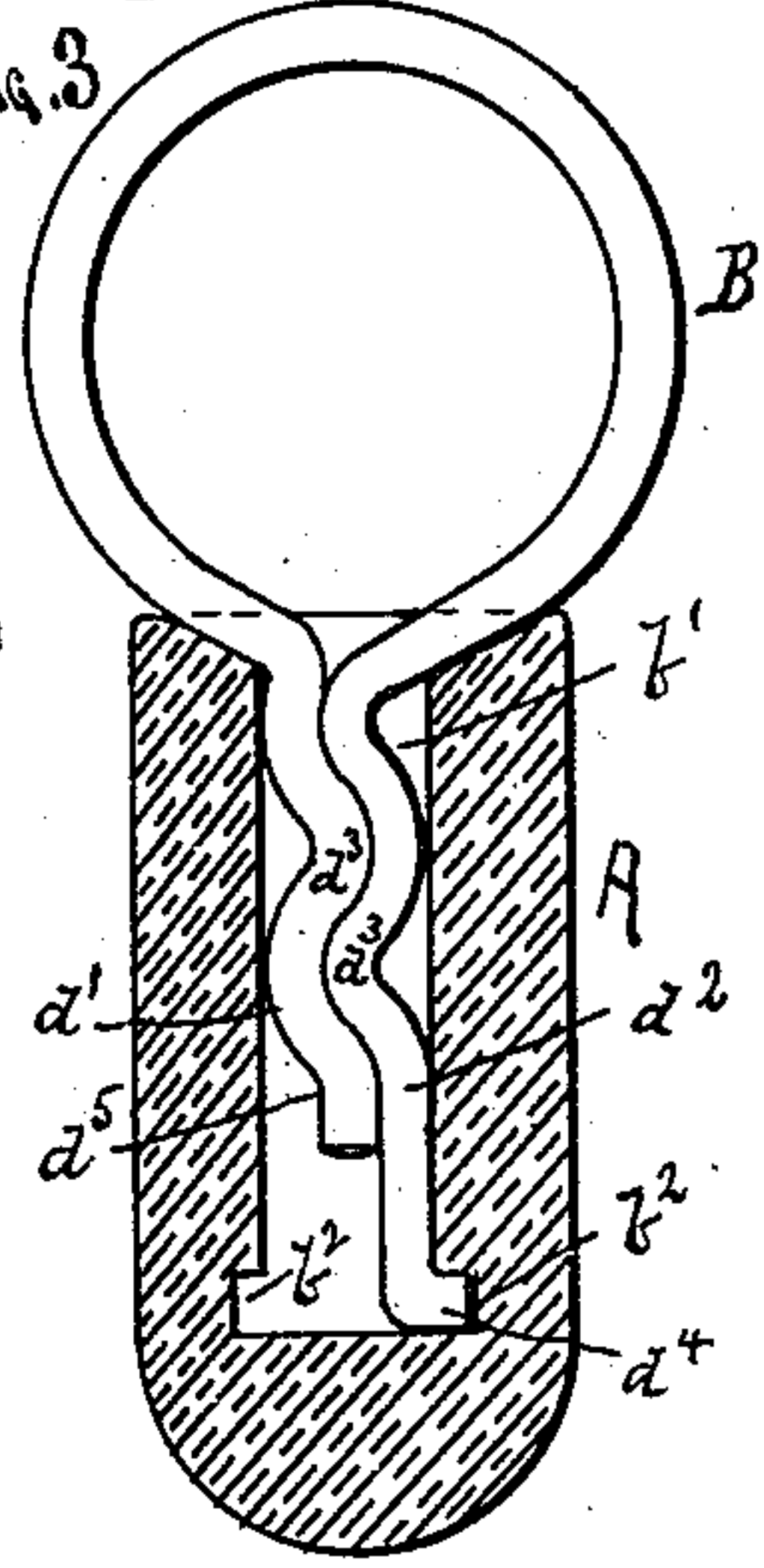


Fig. 6

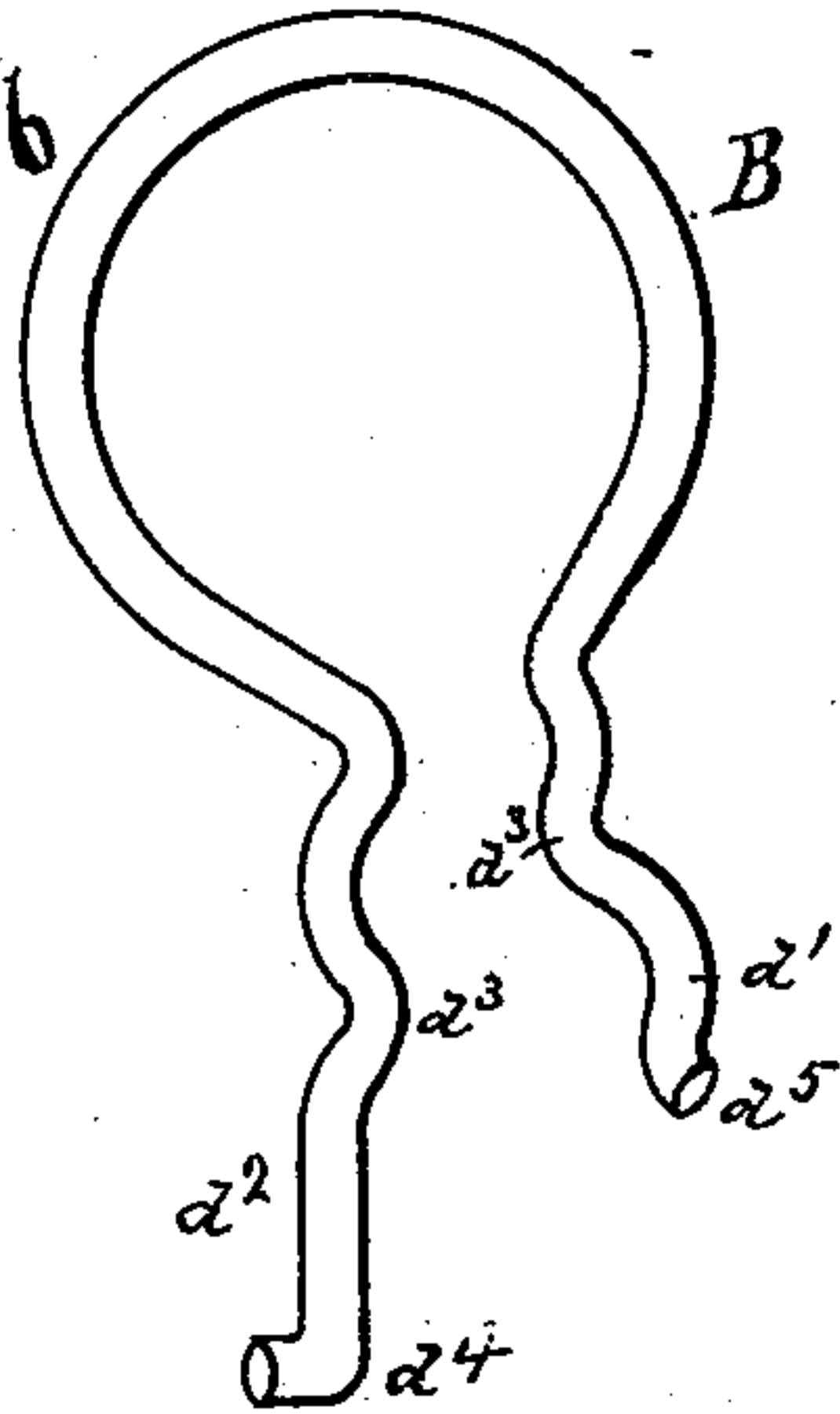


Fig. 5

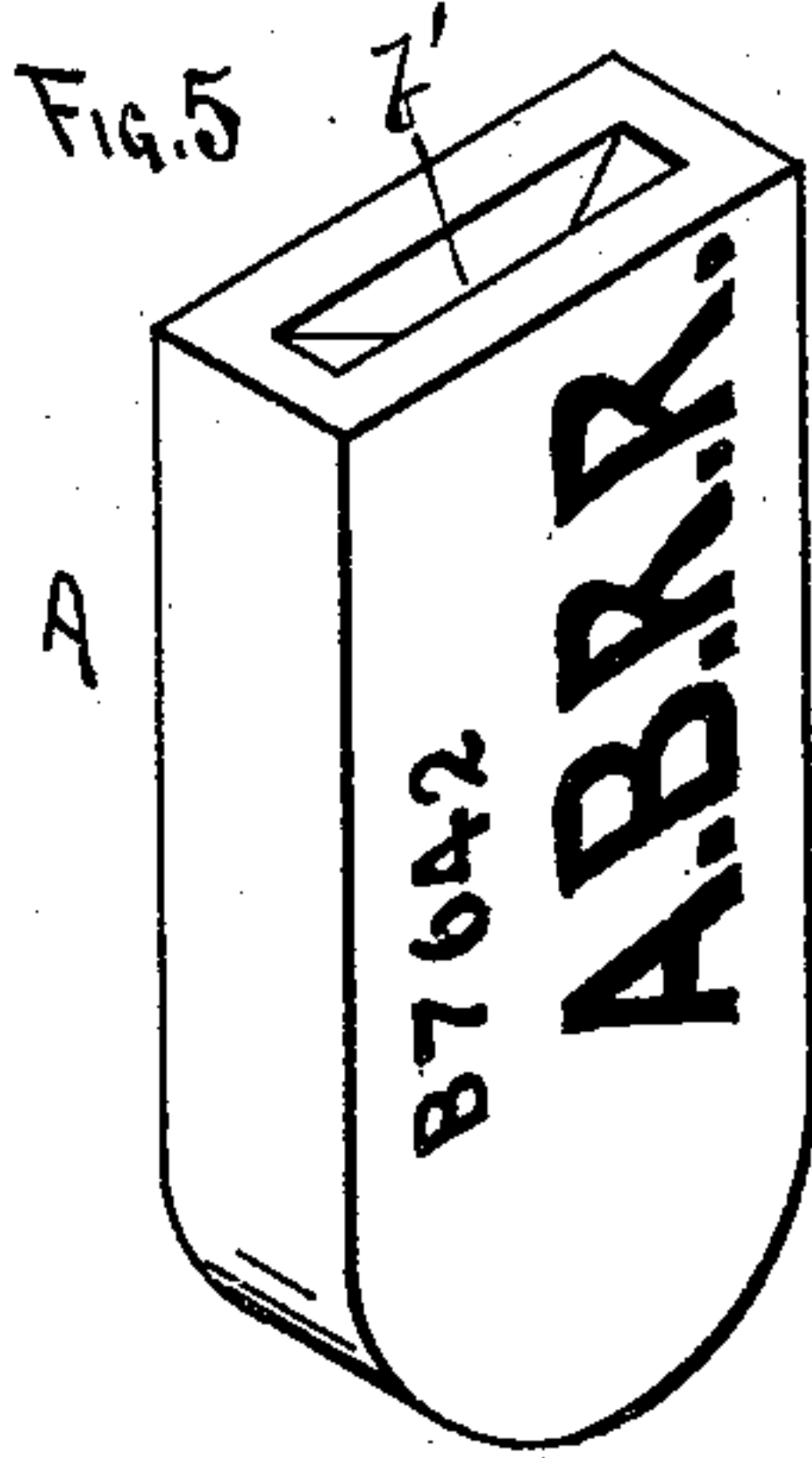
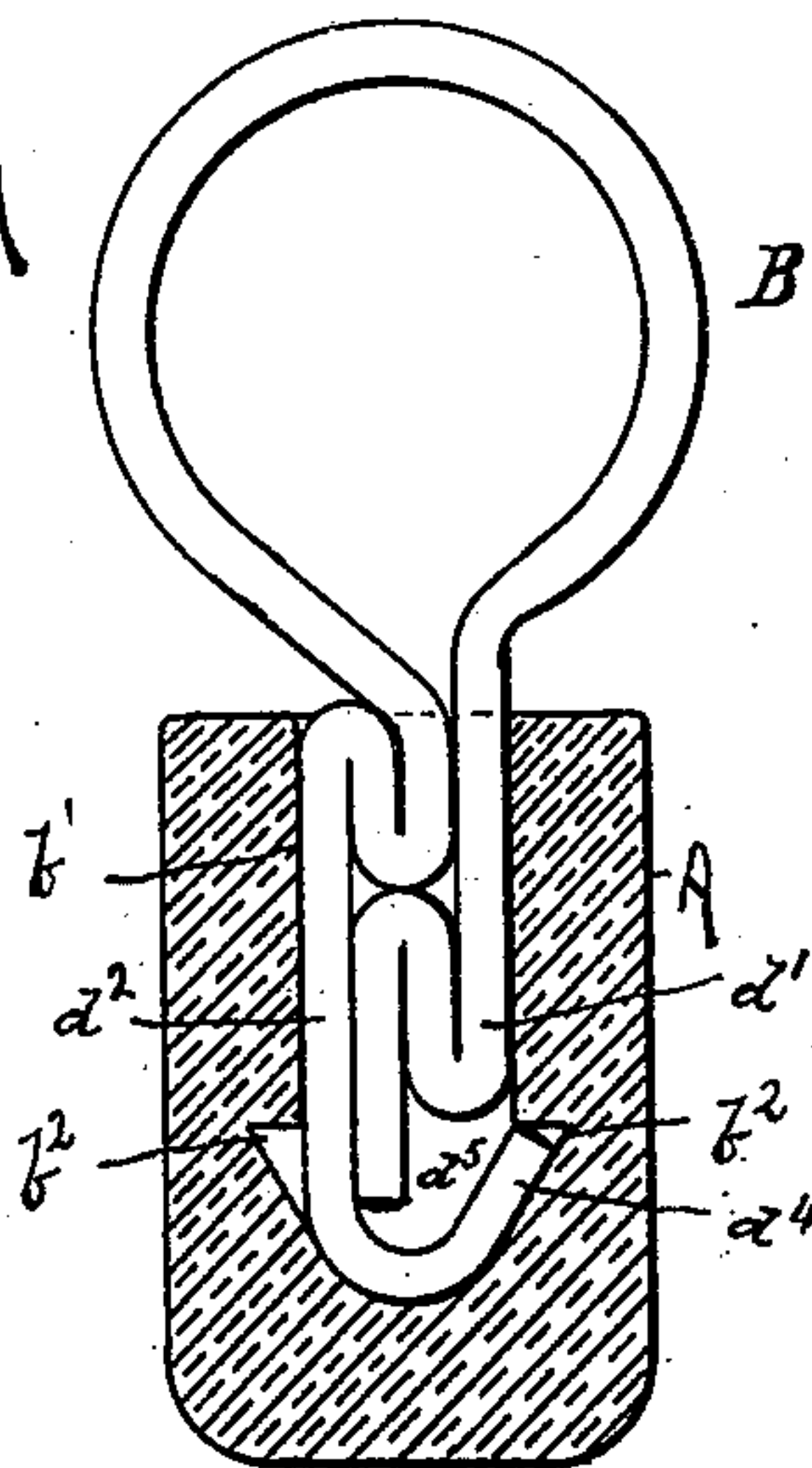


Fig. 7



WITNESSES

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INVENTOR

By Charles N. Woodward atty.

UNITED STATES PATENT OFFICE.

DANIEL F. MACCARTHY, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF
TO HARRY T. DRAKE, OF SAME PLACE.

SEAL.

SPECIFICATION forming part of Letters Patent No. 546,619, dated September 17, 1895.

Application filed March 13, 1894. Serial No. 503,400. (No model.)

To all whom it may concern:

Be it known that I, DANIEL F. MACCARTHY, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Seals, of which the following is a specification.

This invention relates to the class of seals in which a self-connecting and non-withdrawable locking shank or bolt is adapted to be inserted into a breakable block or seal and which can be released only by breaking the seal; and it consists in a lock-bolt formed of two connected legs having correlating and interlocking crimps or bends, and with the extremities of one or both of said legs projecting laterally, so that when said legs are pressed together or placed in juxtaposition the bends or crimps will interlock or underlap and enter and completely occupy an aperture in a breakable seal, the aperture being formed just large enough to receive the two legs, the aperture also having an enlargement at its inner end to receive the lateral projections on the legs. By this means the legs with their crimps or bends, by completely filling the throat of the aperture in the breakable seal, will effectually prevent the insertion of any other object, while the correlating crimps or bends will effectually prevent the removal of either one of the legs without the other, while the lateral projections on one or both of the legs will effectually prevent the removal of both of the legs together. Thus the removal of the shank or bar is rendered impossible without breaking the seal, which is the end sought to be accomplished in all breakable seals.

In the drawings I have shown several modifications in the construction, but all are substantially the same in their results and mode of operation.

Figure 1 is a sectional side elevation, and Fig. 2 a cross-sectional view of one of the breakable seals, with one of the non-removable lock bars or bolts therein. Fig. 3 is a sectional side elevation, and Fig. 4 is a cross-sectional elevation showing a slight modification in the manner of forming the two parts of the device. Fig. 5 is a perspective view of one of the seals, and Fig. 6 is a perspective

view of one of the locking bars or bolts, disconnected, and in the form used in the modification shown in Figs. 3 and 4. Fig. 7 is a view similar to Figs. 1 and 3, illustrating another modification in the construction.

A represents the "seal" or body portion, formed of burnt clay, glass, terra-cotta, or some other suitable easily-breakable material, having a cavity b' formed in it lengthwise, the cavity having an enlarged inner end b^2 , forming lateral cavities, as shown.

The cavities in the different modifications are all substantially the same, and may be modified as to size and shape to suit the different conditions or circumstances under which they are used.

B is a wire bent into a loop and with two legs d' d^2 bent off therefrom at an angle and formed into interlocking crimps or corrugations d^3 , as in Figs. 1, 3, and 6, or bent backward upon themselves and thus made to interlock or underlap, as in Fig. 7.

One or both of the ends d^4 d^5 of the legs are bent off laterally at an angle, as shown, so that when the two interlocking parts are placed together and forced into the cavity b' the lower portion will spring sidewise to a sufficient extent to permit the end d^4 to enter the cavity b' and then to spring into the enlargement b^2 and prevent the removal of the lock bar or bolt. The corrugations or bends in the legs d' d^2 will be of a size to just fill the cavity b' and thus prevent the insertion of any form of instrument to release the bolt.

The corrugations or bends effectually prevent the removal of either leg of the bolt and render it absolutely impossible to remove the bolt without breaking the seal.

The construction is extremely simple and inexpensive, while at the same time it is very effective in preventing any tampering with the seal.

Another very important advantage of this construction is the fact that I am able to use large gage-wire for the lock bolt or bar, thereby preventing the danger of tampering with the seal by breaking or cutting the bolt. By this ability to use large gage-wire the private mark of the shipper or railroad company may be stamped upon the wire as a still greater precaution against fraud.

The initials of the railroad or other corporation employing the seals will generally be impressed upon the seals when in a plastic state, together with a number or other distinctive mark or emblem to indicate the ownership or as a preventive of fraud, as each seal can thus be made to bear its individual mark or notation.

When in operation the bolt B is passed through the staple or other part to be secured, the two legs d' d^2 pinched together, as in Figs. 1, 3, and 7, and the seal forced over them until the lateral projections d^4 or d^5 spring into the cavity b^2 , which effectually locks the seal in place, so that it cannot be removed without breaking.

Having thus described my invention, what I claim as new is—

In a seal, a bolt or shank formed with two

connected legs, having interlocked crimps or bends, and with the ends of one or both legs projecting laterally, in combination with a breakable seal having an aperture adapted to receive said legs when said crimps or bends are interlocked, and with an enlargement to receive said lateral projections, whereby said aperture is completely filled by said legs and their removal without breaking the seal rendered impossible, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DANIEL F. MACCARTHY.

Witnesses:

C. N. WOODWARD,

H. S. WEBSTER.