

E. J. BROOKS.

SNAP SEAL.

(Application filed Feb. 18, 1902.)

(No Model.)

Fig. 1.

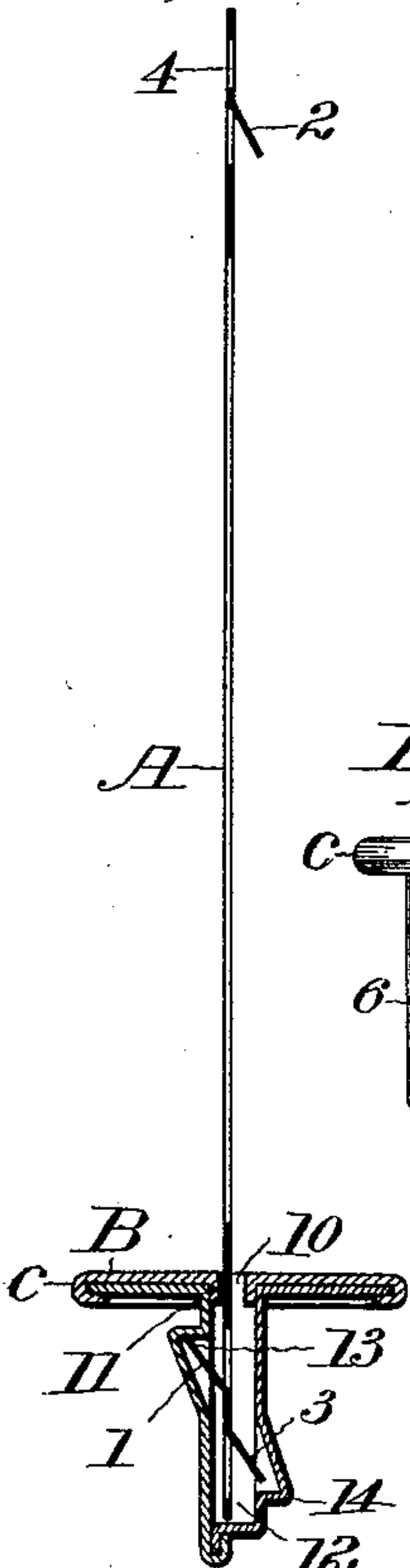


Fig. 2.

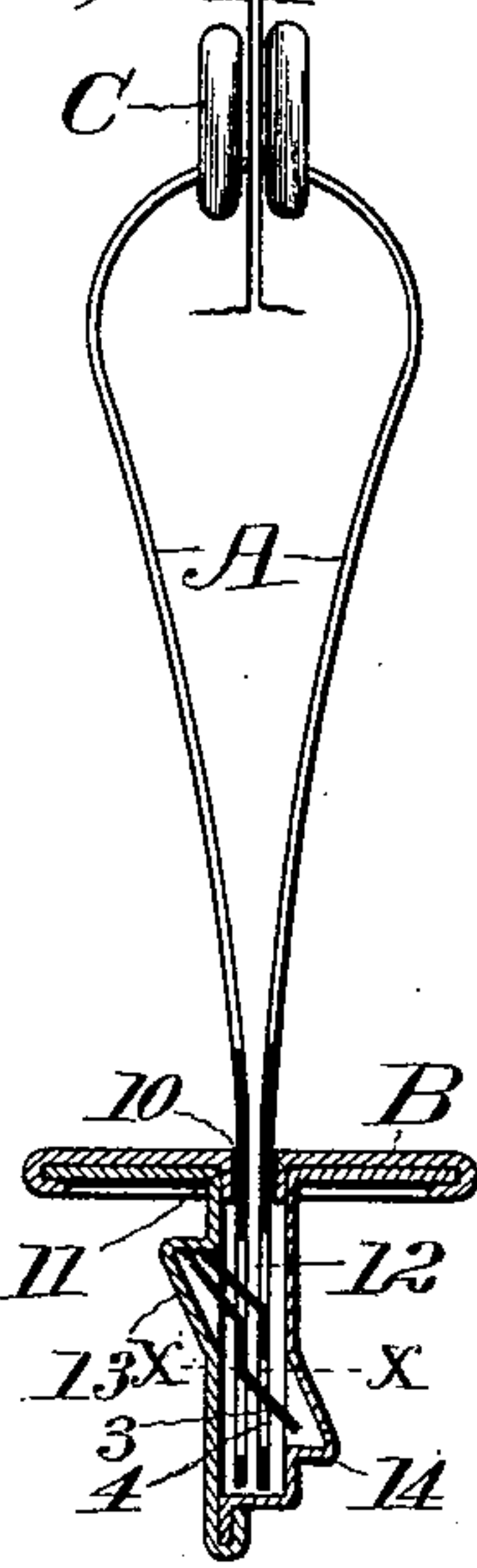


Fig. 3.

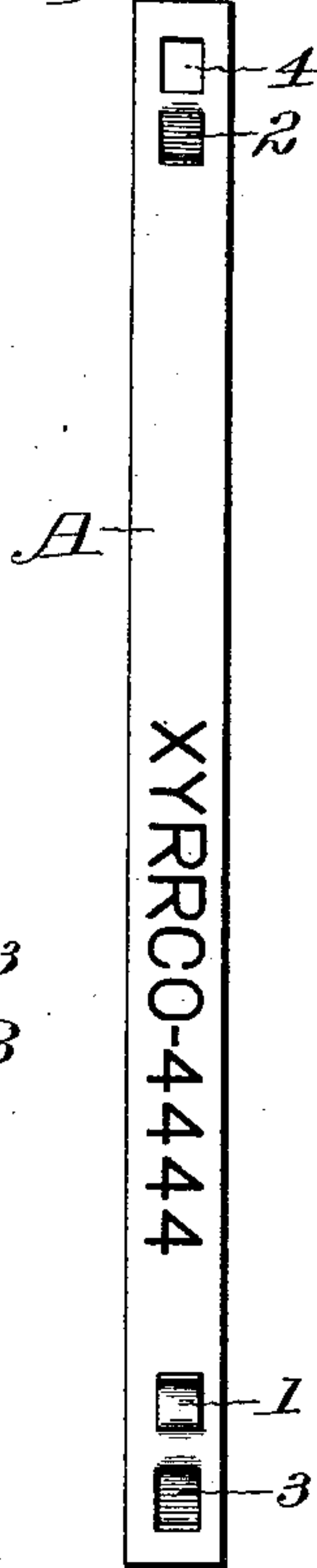


Fig. 12.

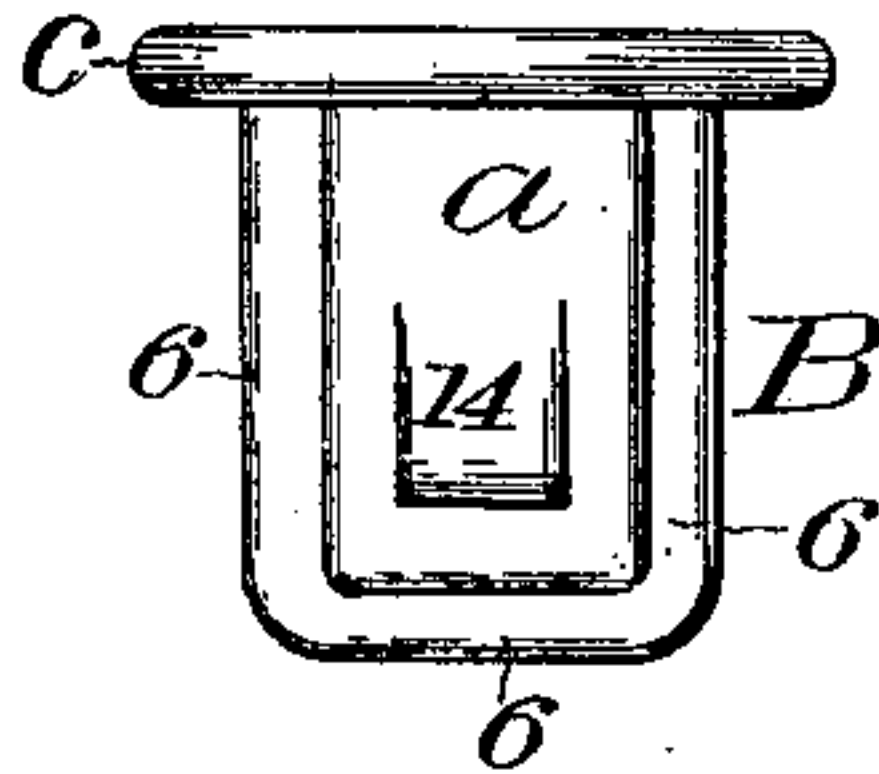


Fig. 13.

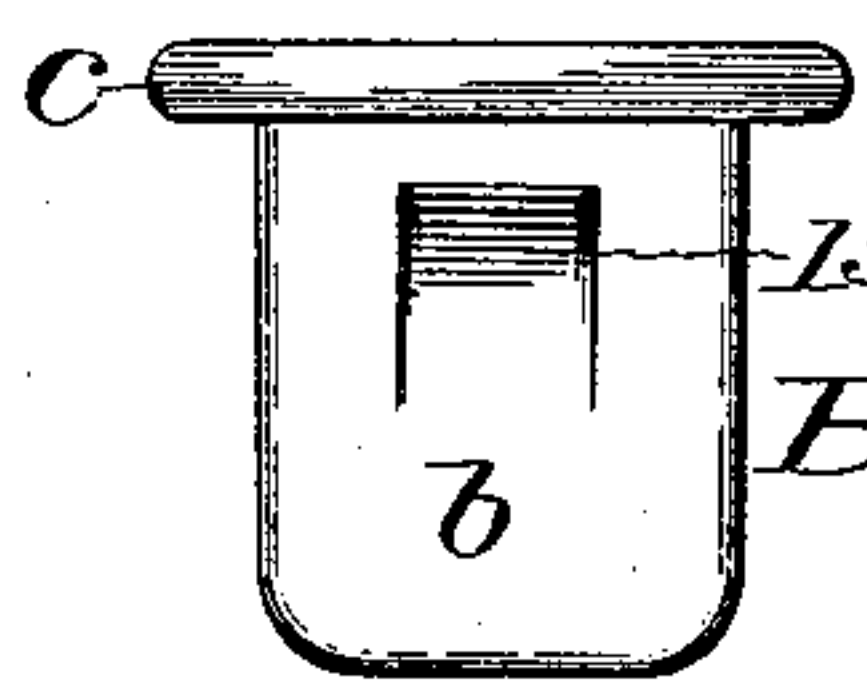


Fig. 14.

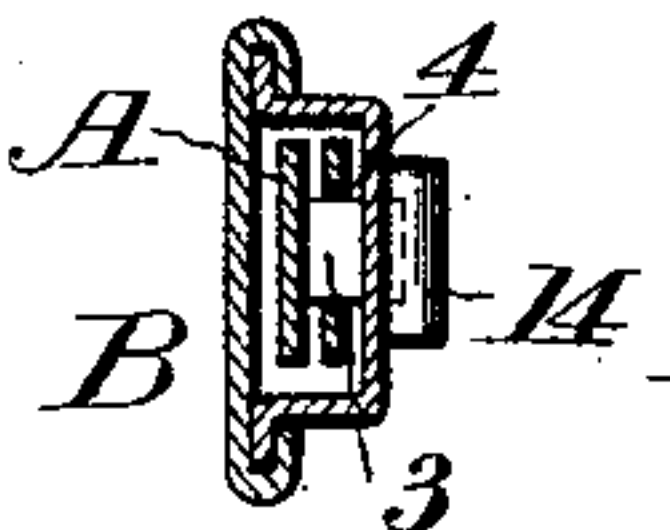


Fig. 4.

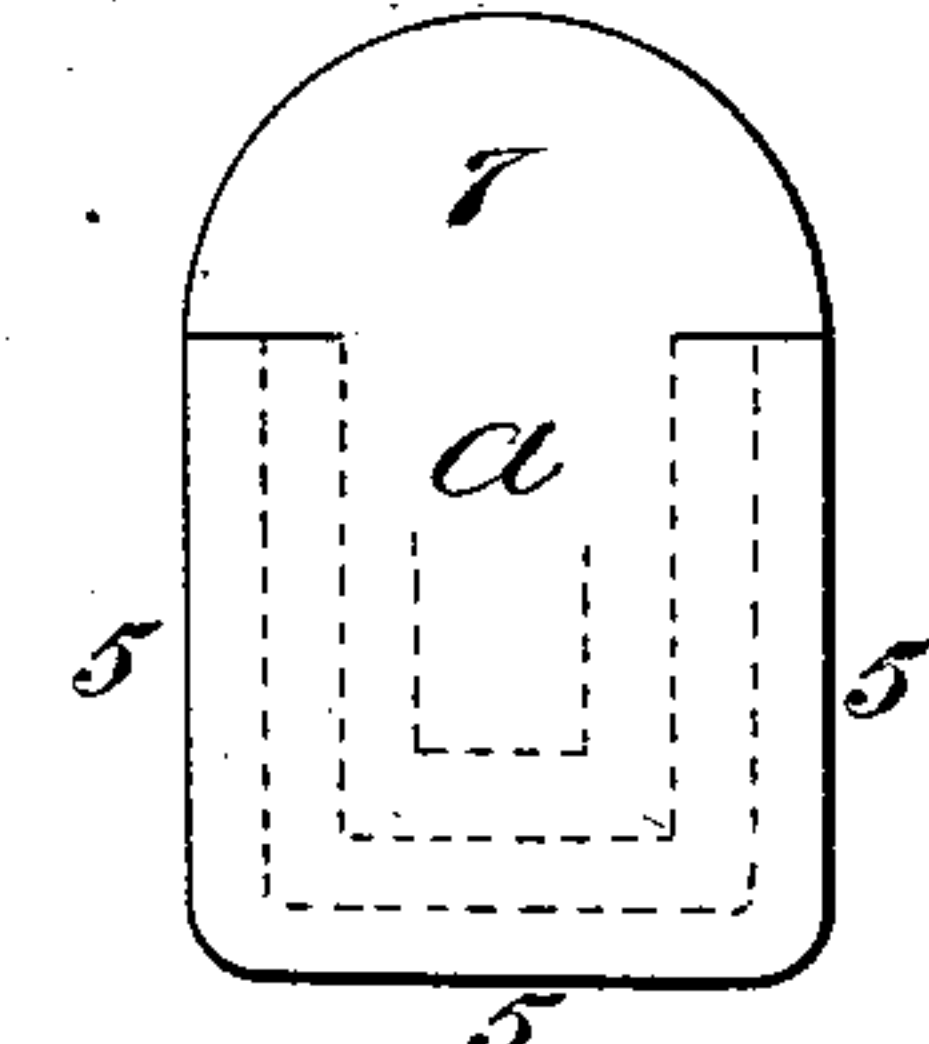


Fig. 5.

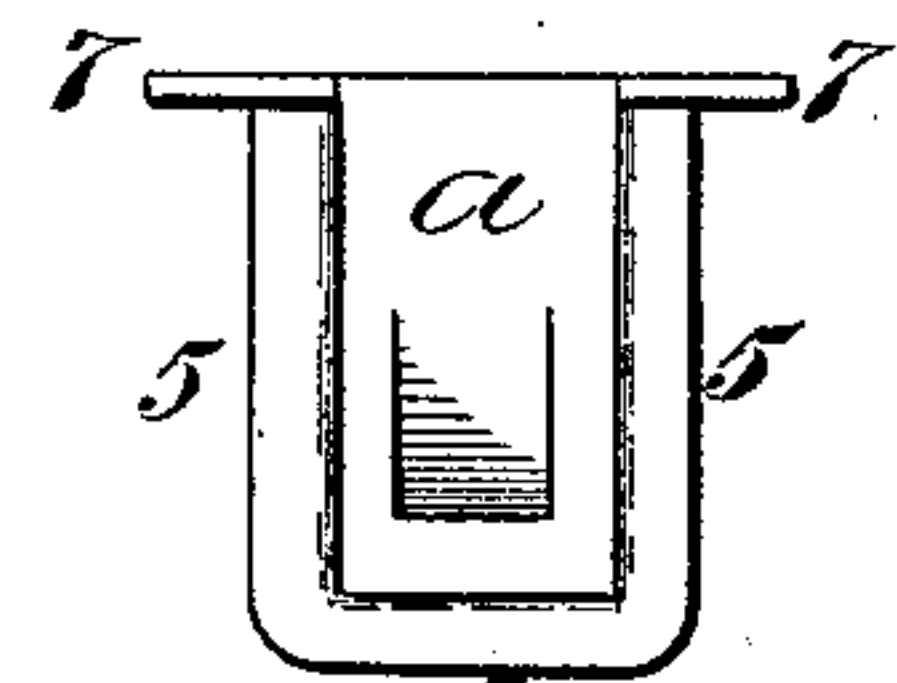


Fig. 6.

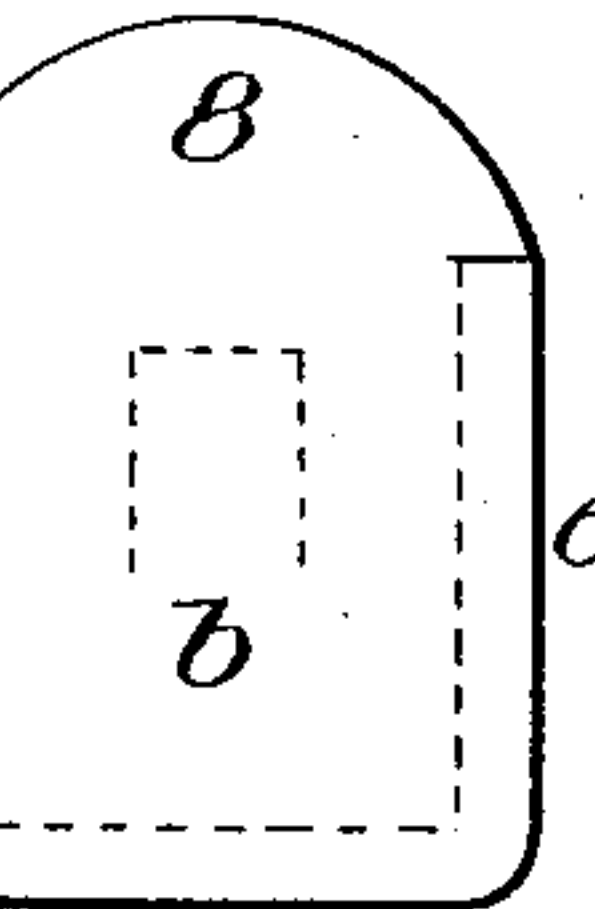


Fig. 7.

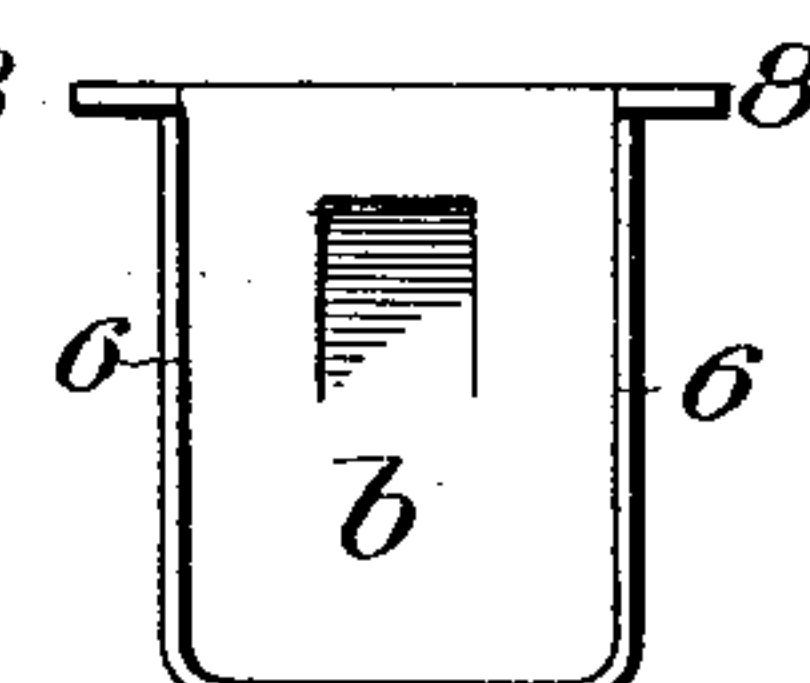


Fig. 8.

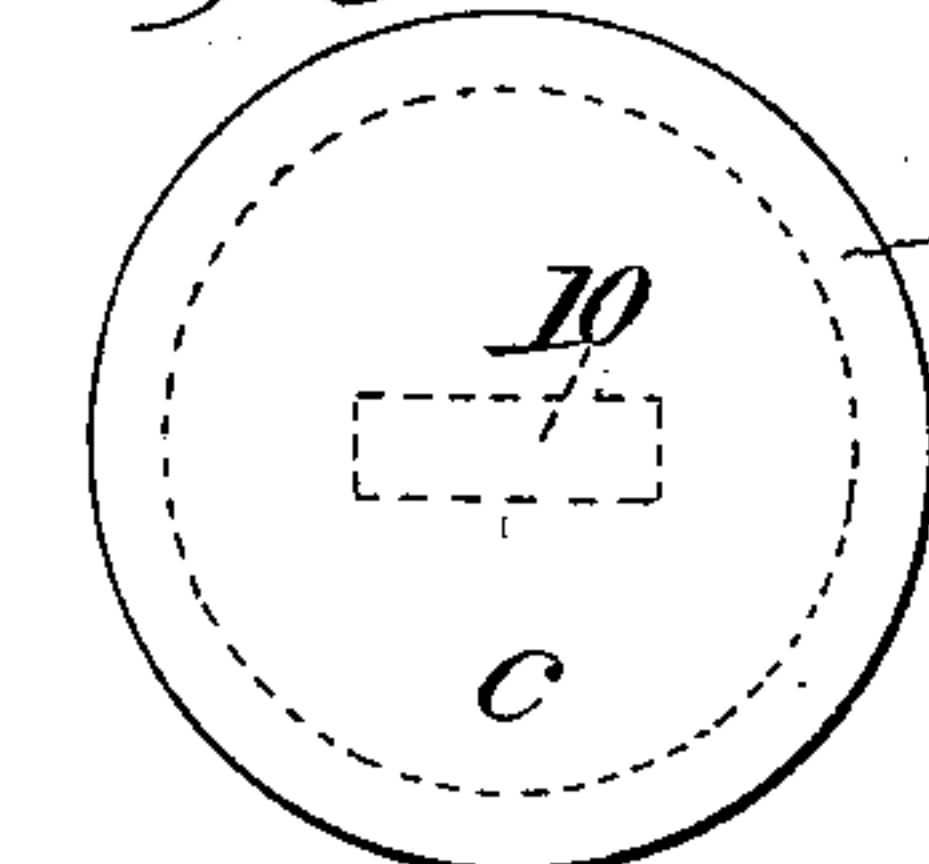


Fig. 9.

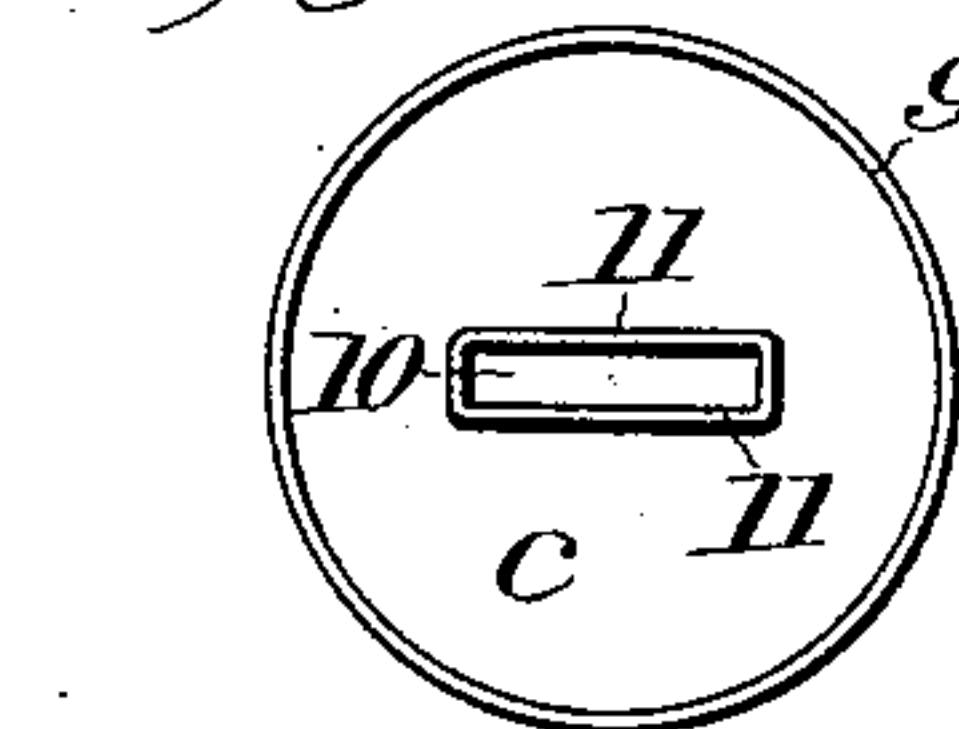


Fig. 10.

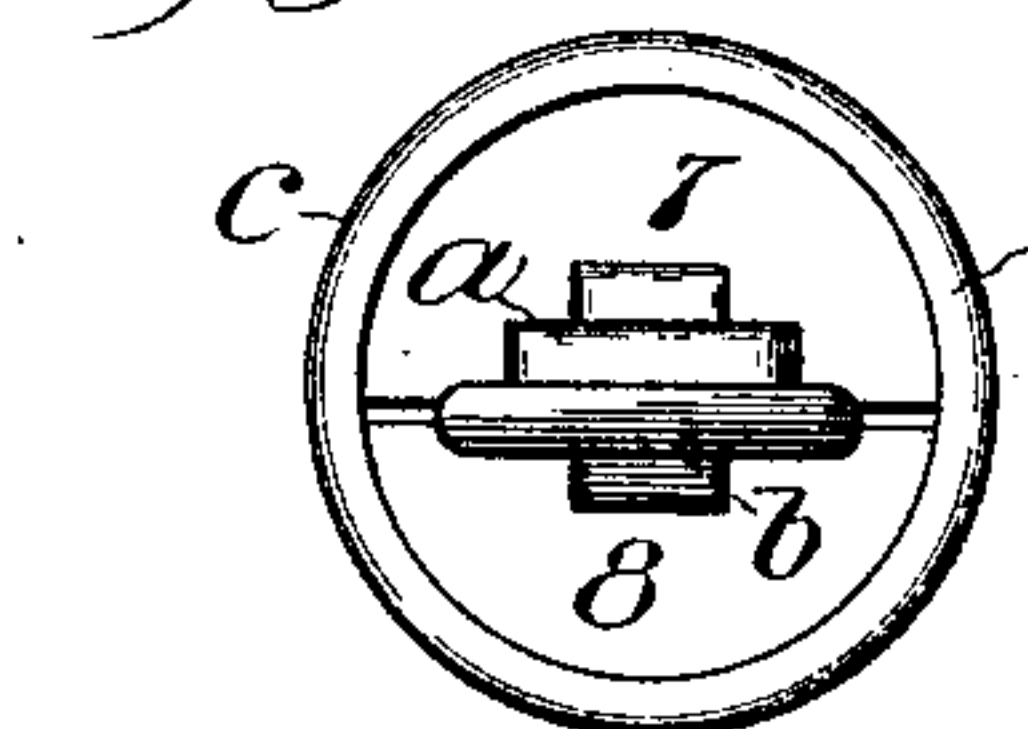
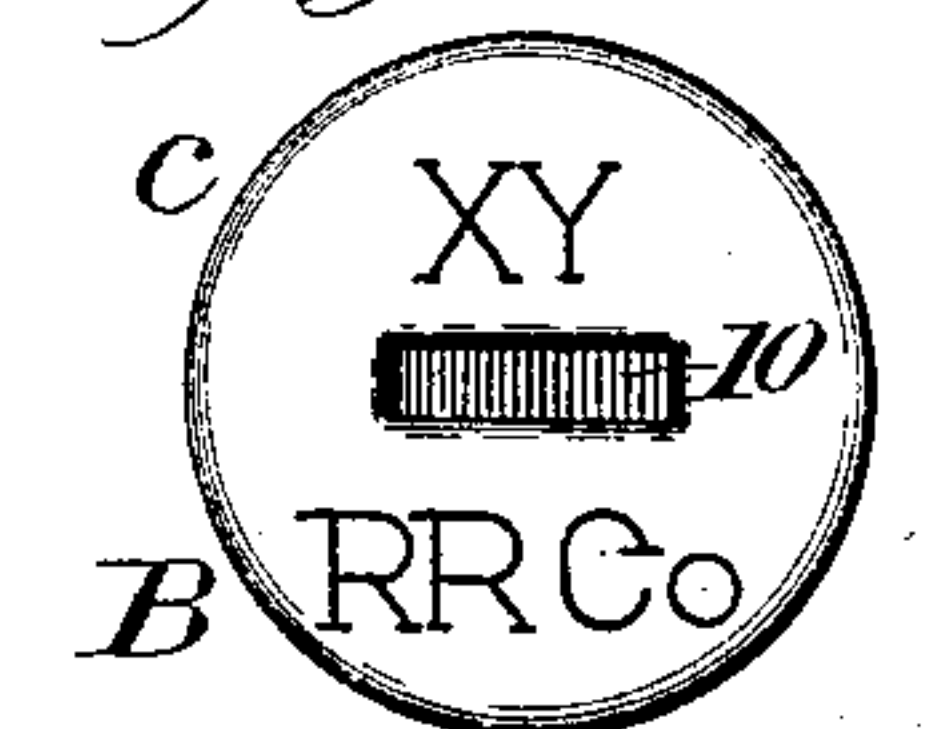


Fig. 11.



Inventor

Edward J. Brooks

By

[Signature]

Attorney

Witnesses

[Signatures of Witnesses]



# UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY.

## SNAP-SEAL.

SPECIFICATION forming part of Letters Patent No. 697,375, dated April 8, 1902.

Application filed February 18, 1902. Serial No. 94,632. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. BROOKS, a citizen of the United States of America, and a resident of East Orange, in the State of New Jersey, have invented a new and useful Improvement in Snap-Seals, of which the following is a specification.

This invention is additional to my series of improvements relating to self-fastening seals or "snap-seals," as they are commonly termed, adapted for use as substitutes for lead and wire seals and other press-fastened sealing devices to secure the doors of railroad freight-cars against surreptitious entry and for other like purposes. Previous forms of such snap-seals are set forth in my specifications forming part of United States Letters Patent No. 679,104, dated July 23, 1901, and previous Letters Patent therein mentioned.

The present invention is more particularly an improvement on the snap-seal of said Letters Patent No. 679,104.

In constructing seals of this class, which are used only once, the cost of manufacture and of transportation in bulk is an important consideration.

The leading object of the present invention is to construct a safe and secure snap-seal that can be made at a relatively low cost from small pieces of scrap tin and that will be of light weight.

The invention consists in the improved seal, as hereinafter described, and in certain novel combinations of parts thereof pointed out in the appended claims.

A sheet of drawings accompanies this specification as part thereof.

Figures 1 and 2 of the drawings are longitudinal sections of the improved seal, showing it respectively as it leaves the factory or as it is carried by the sealer and as applied to a pair of car-door staples and fastened. Fig. 3 is a face view of the shackle segregated. Figs. 4 and 5, Figs. 6 and 7, and Figs. 8 and 9 are detail views of the respective pieces of which the hollow seal part is composed. Figs. 10 and 11 are end views of the completed seal part. Figs. 12 and 13 are side views of the same, and Fig. 14 is a cross-section on the line  $x x$ , Fig. 2.

Like letters and numbers refer to like parts in all the figures.

In common with the seal set forth in said previous specification forming part of Letters Patent No. 679,104 the present seal is composed of a flexible shackle A, the respective ends of which are provided with snap-catches 1 and 2 and a hollow seal part B, within which the respective ends of the shackle are successively made fast, one end of the shackle A being conveniently so attached to the seal part B at the factory or by the sealer before starting out with a handful of seals to seal the cars, baggage, or the like to which they are to be applied and the other end after being passed through a pair of car-door staples C or the like, which cannot afterward be separated without destroying the seal.

The improved shackle A has a pair of withdrawal-resisting snap-catches 1 and 2, severed except at one end from the sheet-metal body of the shackle and projecting longitudinally from the face and back of the shackle, respectively, toward its middle. Between the first of these snap-catches 1 and its end of the shackle an oppositely-projecting snap-catch 3 of like shape is thrown out at the back of the shackle, and between the other snap-catch 2 and its end of the shackle a catch-opening 4 is formed to interlock with said catch 3 when the second shackle end is inserted into the seal part B, Fig. 2. The face of the shackle is furthermore provided with the customary permanent distinguishing marks represented by "XYRRCO-4444" in Fig. 3.

The improved seal part is composed of three pieces  $a$ ,  $b$ , and  $c$ , Figs. 4 to 13, inclusive, of which the pieces  $a$  and  $b$  are united with each other by interlocking flanges 5 and 6, and the disk-shaped piece  $c$  is attached by interlocking flanges 7, 8, and 9 upon the respective pieces, said piece  $a$  appearing in the blank as represented by Fig. 4 and when ready to be united with the other pieces as represented by Fig. 5, the piece  $b$  appearing in the blank as represented by Fig. 6 and when ready to be united with the other pieces as represented by Fig. 7, and the piece  $c$  preferably appearing in the blank as represented by Fig. 8 and when ready to be united with



the other pieces as represented by Fig. 9. The dotted lines in Figs. 4, 6, and 8 represent the lines on which the metal is bent, and it will be understood that in practice the metal is stamped out and pressed into shape by substantially a single operation. The pieces in the shapes represented by Figs. 5, 7, and 9 are assembled and permanently united with each other by interlocking said flanges 5, 6, 7, 8, and 9, as in Figs. 10 and 12.

The completed seal part B, Figs. 1 and 2 and Figs. 10 to 14, inclusive, has an inlet-opening 10 with inwardly-projecting flanges 11 at its sides to stiffen the metal, a body-chamber 12 in communication with said inlet-opening, and wedge-shaped recesses 13 and 14 in the respective sides of said chamber 12, said recess 13 being a catch-recess to cooperate with said snap-catches 1 and 2, as in Figs. 1 and 2, and said recess 14 accommodating the supplemental snap-catch 3 as in these figures.

When the first end of the shackle is introduced through the inlet 10, to preliminarily attach the same to the seal part B its snap-catch 1 interlocks with said catch-recess 13, as in Fig. 1, and the shackle A and seal part B are thus united with each other. After the other end of the shackle has been passed through the car-door staples C or the like and is inserted, as in Fig. 2, its snap-catch 2, springing through the opening from which the snap-catch 1 is cut, interlocks with said catch recess 13 behind said snap-catch 1, as in Fig. 2. At the same time the catch-hole 4, passing said snap-catch 3, interlocks with the latter, which then resumes its normal position within said recess 14 and materially adds to the security of the seal.

The disk-shaped face of the seal part B may conveniently be provided with any desired lettering or distinguishing marks represented by "X. Y. R. R. CO." in Fig. 11, or the distinctive shape of this part, with or without a distinctive color, may suffice to distinguish it. The size and shape of the body portion of the seal part, formed by said pieces *a* and *b*, are determined by the absolute requirements for the accommodation within the same of the shackle ends and snap-catches, and the seal part is thus made as small and of as light weight as is practicable. On the other hand, with the seal part so marked, the lettering of the shackle A may be dispensed with, if preferred, with or without the employment of a distinguishing color instead. The relative size and the shape of the seal-part piece *c* may be changed. The snap-catches may be pointed or rounded, if preferred, and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification—

1. An improved snap-seal composed of a flexible sheet-metal shackle having with-

drawal-resisting snap-catches at its respective ends, projecting from its face and its back respectively, an oppositely-projecting supplemental snap-catch between one of said catches and its extremity of the shackle and a catch-hole between the other of the catches first named and its extremity of the shackle adapted to interlock with said supplemental snap-catch, and a hollow sheet-metal seal part having an inlet for the shackle ends, a chamber in communication with said inlet adapted to accommodate said shackle ends within it, and recesses in the respective sides of said chamber adapted to interlock with said catches first named and to mask the free end of said supplemental snap-catch.

2. The combination, in a snap-seal, of a flexible sheet-metal shackle having with-drawal-resisting snap-catches at its respective ends, and a hollow sheet-metal seal part composed of a pair of body-pieces and a disk-shaped inlet-forming piece interlocked with each other and adapted to inclose said shackle ends and to interlock with said snap-catches successively.

3. The combination, in a snap-seal, of a flexible sheet-metal shackle having with-drawal-resisting snap-catches at its respective ends, severed from the body of the shackle at one end and projecting from its face and from its back respectively, and a hollow sheet-metal seal part composed of a pair of body-pieces and a disk-shaped inlet-forming piece interlocked with each other and having a chamber, in communication with the inlet, provided with a catch-recess in one side adapted to interlock successively with both of said snap-catches.

4. The combination, in a snap-seal, of a flexible sheet-metal shackle having with-drawal-resisting snap-catches at its respective ends, severed from the body of the shackle at one end and projecting from its face and from its back respectively, an oppositely-projecting supplemental snap-catch between one of said catches and its extremity of the shackle and a catch-hole, between the other of the catches first named and its extremity of the shackle, adapted to interlock with said supplemental snap-catch, and a hollow sheet-metal seal part composed of a pair of body pieces and a disk-shaped inlet-forming piece, interlocked with each other and adapted to inclose said shackle ends and to interlock with said catches first named.

5. The combination, in a snap-seal, of a flexible sheet-metal shackle having with-drawal-resisting snap-catches at its respective ends, severed from the body of the shackle at one end and projecting from its face and from its back respectively, an oppositely-projecting supplemental snap-catch between one of said catches and its extremity of the shackle and a catch-hole, between the other of the catches first named and its extremity of the shackle, adapted to interlock with said



supplemental snap-catch, and a hollow sheet-metal seal part composed of a pair of body-pieces provided respectively with a recess adapted to interlock with said catches first  
5 named and a recess to mask the free end of said supplemental snap-catch, and a disk-shaped inlet-forming piece interlocked with

said body-pieces, substantially as hereinbefore specified.

EDWARD J. BROOKS.

Witnesses:

GEO. O. TOTTEN,  
M. E. KANALEY.