

No. 716,888.

Patented Dec. 30, 1902.

J. HANCOCK.
SAFETY PIN.

Application filed Apr. 22, 1902.

(No Model.)

Fig. 1.

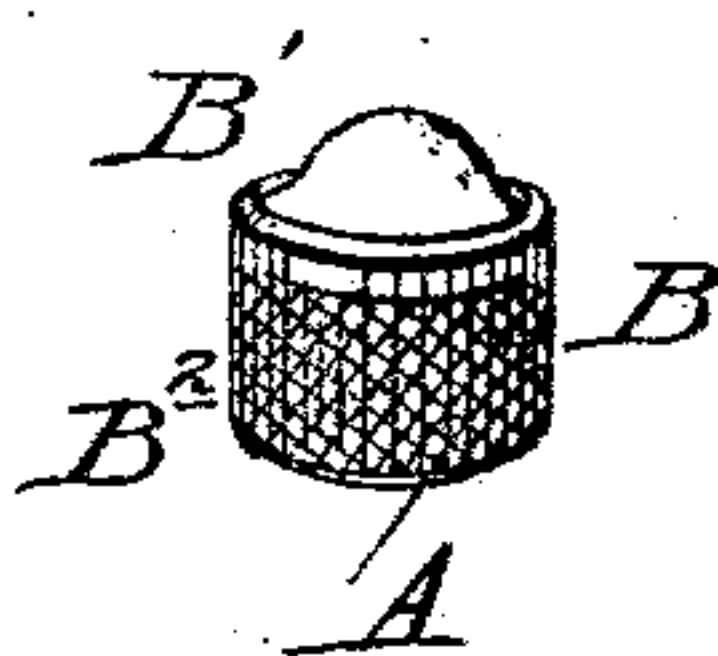


Fig. 2.

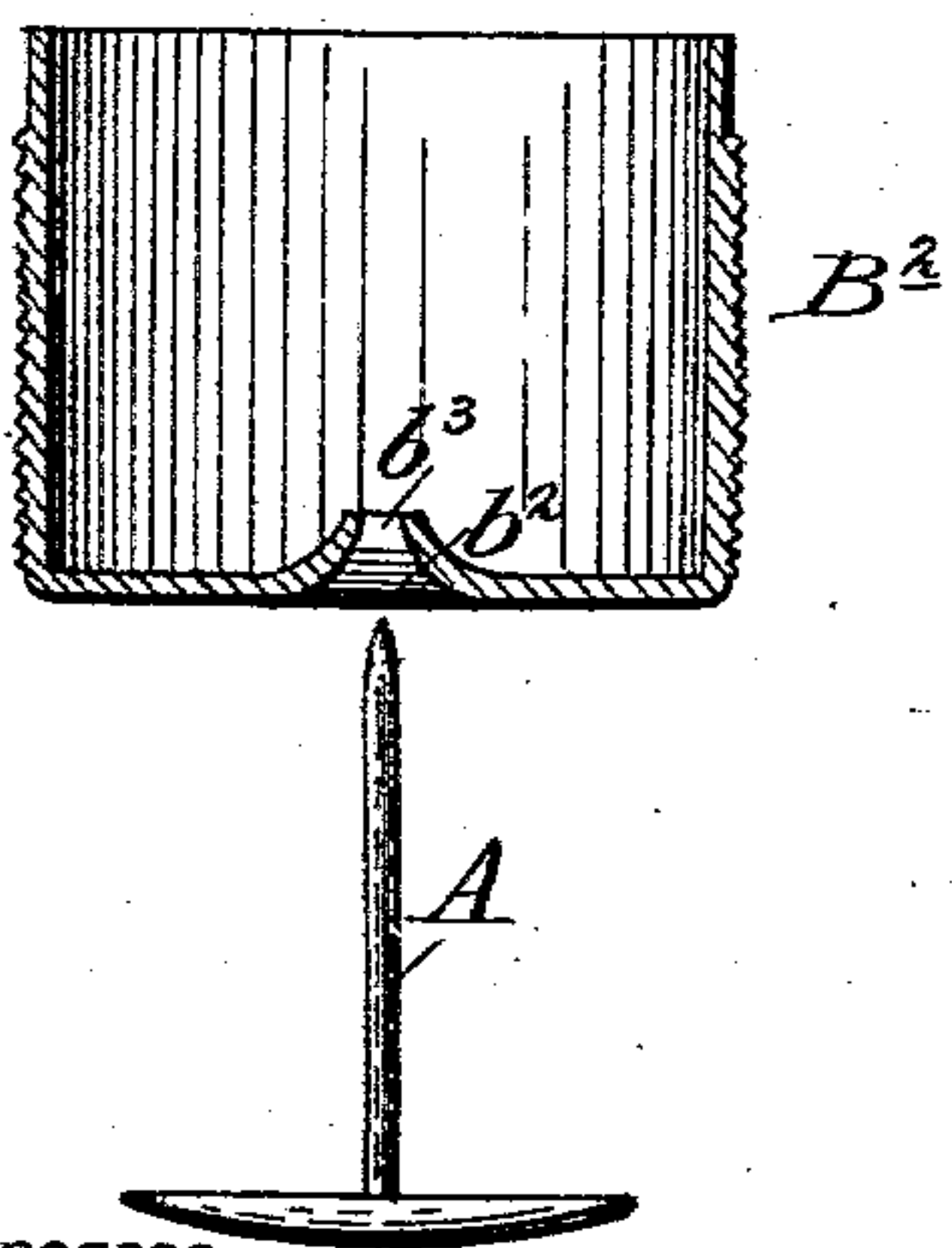
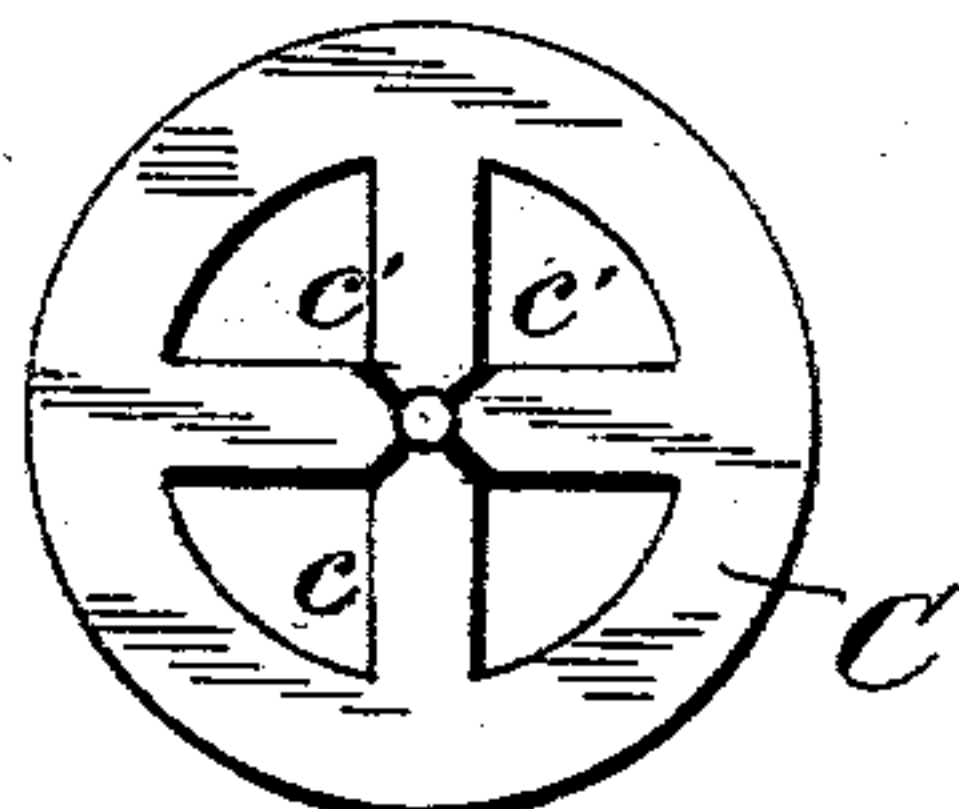
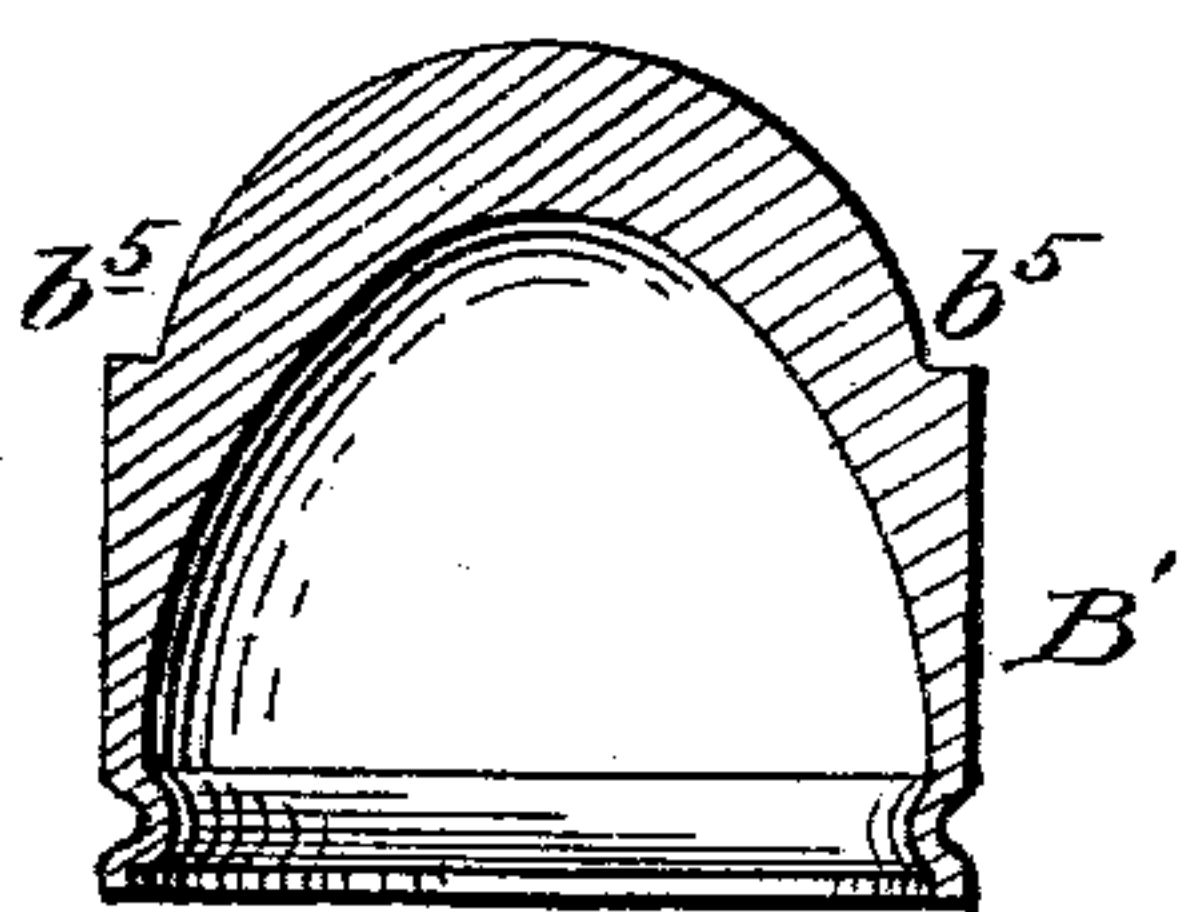


Fig. 3.

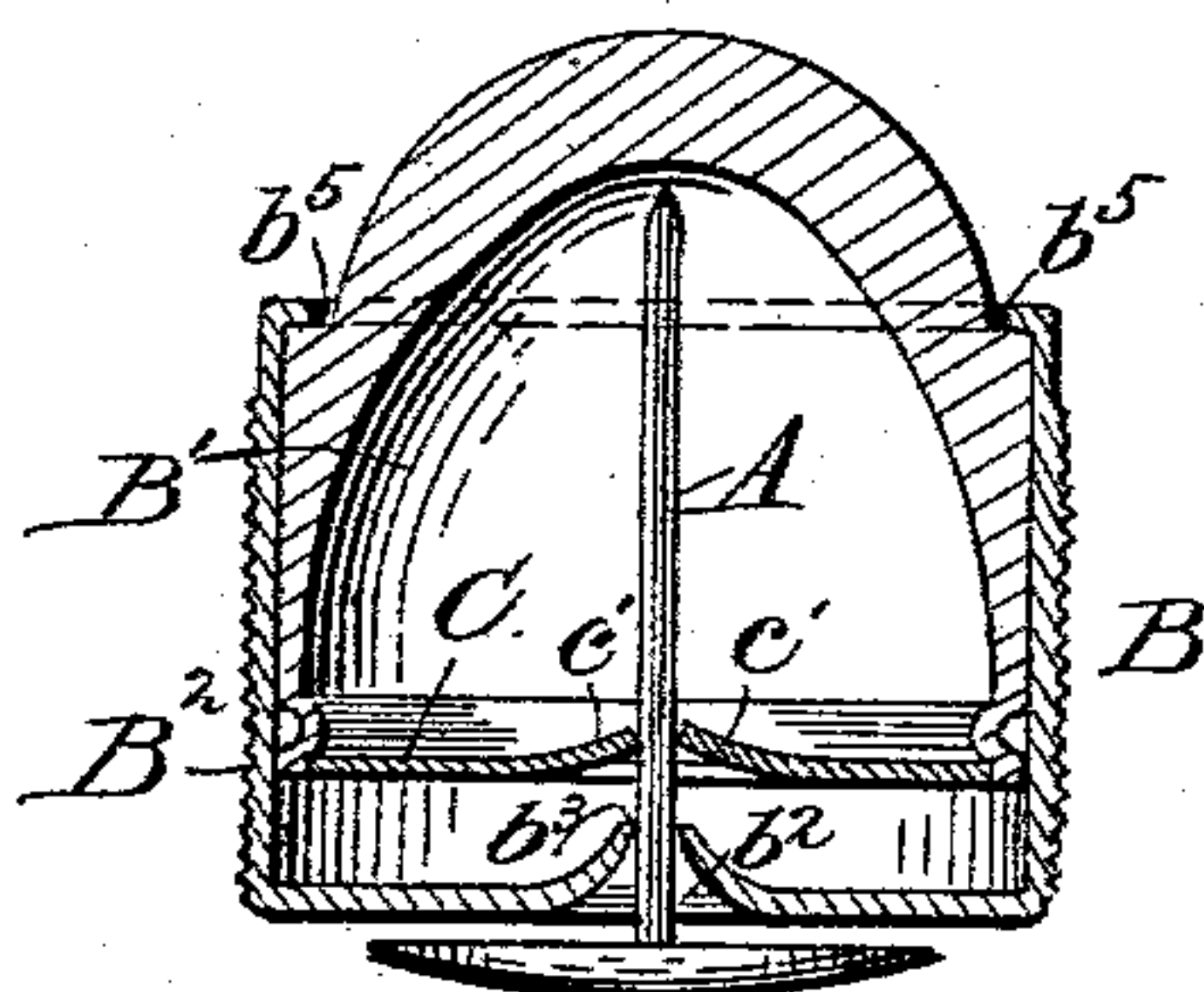
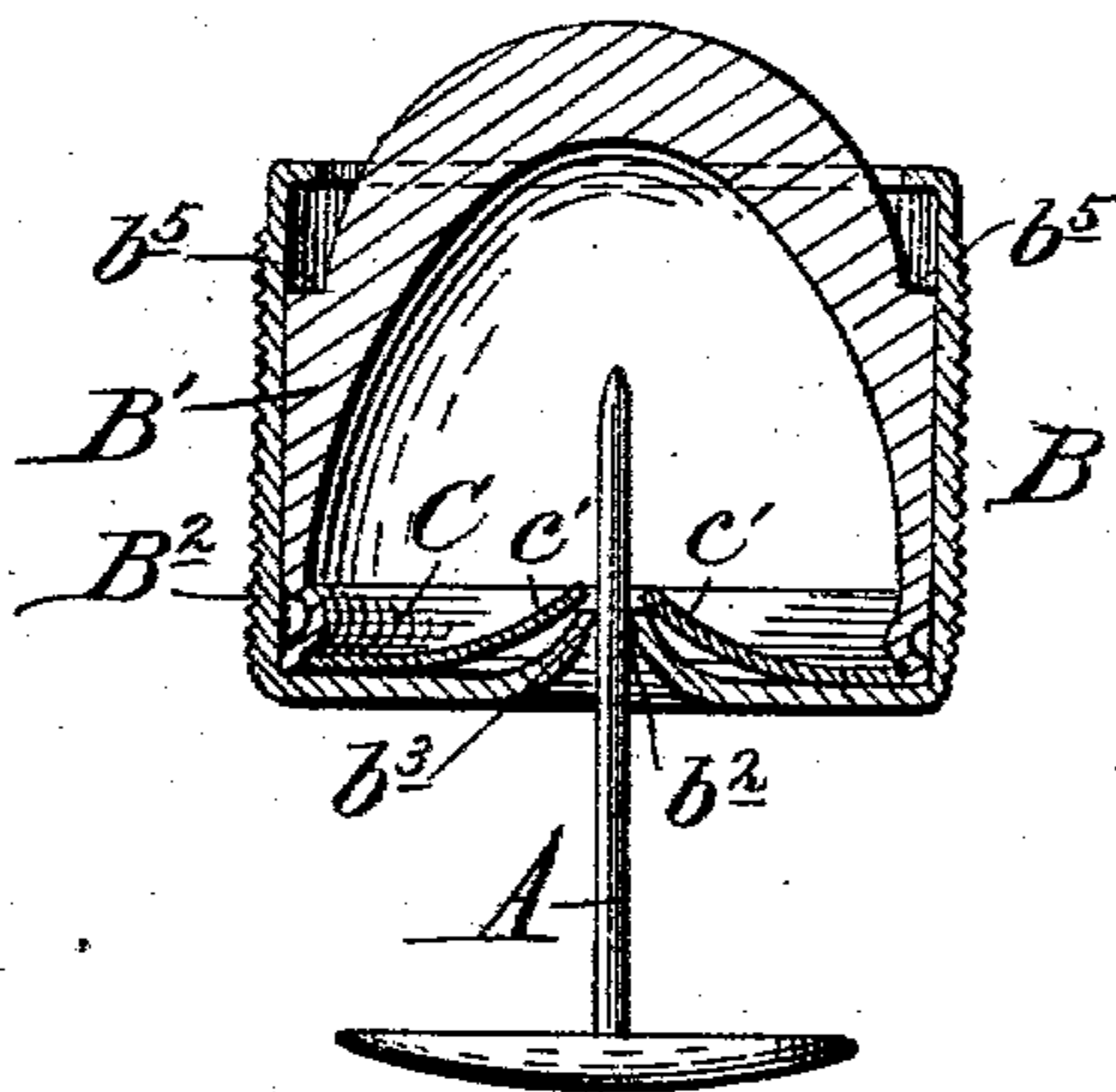


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN HANCOCK, OF ALTON, ILLINOIS.

SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 716,888, dated December 30, 1902.

Application filed April 22, 1902. Serial No. 104,226. (No model.)

To all whom it may concern:

Be it known that I, JOHN HANCOCK, a citizen of the United States, residing at Alton, Madison county, Illinois, have invented certain new and useful Improvements in Safety-Pins, of which the following is a specification.

My invention relates to that class of safety-pins comprising a headed pin and a casing or body which receives the pin after it has been passed through the material or article to be secured, said casing having means for locking the pin when desired.

The objects of the invention are to provide a pin of the class described which shall be simple and inexpensive in construction and highly effective in its operation. These objects I accomplish by the construction shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved pin with the pin proper inserted in the casing or body portion. Fig. 2 is a view showing the several parts of the device separated. Fig. 3 is an enlarged central vertical section with the pin locked by the locking-springs. Fig. 4 is a similar view with the two parts of the casing or body pressed together to open the springs and release the pin.

A designates the pin proper, provided with a flat disk-like head. The pin at the free end is pointed to readily pass through the material or article to which the pin is to be applied.

B is the body or casing, formed in two telescopic sections B' B², closed at their outer ends, the inner section B' sliding freely in the outer section B² and having its upper or outer end of any suitable design or configuration. Within the lower open end of said inner section B' is secured by beading or crimping or in any suitable manner a spring-clamp C, comprising a ring c, provided with two or four horizontal spring-arms c' c', having notches in their inner adjacent ends, which together form a central aperture to receive the shank of the pin A. This clamping device C is preferably struck up from a thin sheet-steel disk.

The bottom or closed end of the outer casing-section B² is provided with a central aperture b², and at the inner surface of said bottom is provided a clamp-releasing device b³ in the form of a cone. This cone b³ may

be formed by punching in the material of the bottom at said aperture or in any other suitable manner. The apex of the cone b³ engages the inner free ends of the spring-arms c' c', and so these spring-arms and cone serve normally to force the two casing-sections B' B² apart. The marginal edge of the outer section B² is flanged inwardly over a suitable annular shoulder b⁵ on the section B', and so the two sections are held together, and the outer section is preferably roughened or milled to afford a better surface for the fingers to grasp.

When the pin A is pushed through the central aperture b² and between the inner ends of the spring-arms c' c', it will slightly incline the spring-arms inwardly, as it is of greater diameter than the space between the spring-arms, and therefore any reverse pull on the pin A will tend to move the spring-arms back to their normal horizontal position, and so they will firmly bite against the pin and hold it firmly against all effort to remove it. If, however, the outer section B' is pressed inwardly, it will force the spring-arms against the apex of the cone b³ and cause them to be moved out of engagement with the pin, and so the latter may be readily removed.

The pin may be used as a separable button, as a diaper-pin, pin for horse-blankets, or as a waistband or belt pin, or for securing papers together. In fact, the field of use is very large, and I do not limit myself in this particular, but reserve the right to manufacture the device in such sizes and shapes and of such materials as will adapt it for any and all uses to which it may be applied.

What I claim is—

1. The combination with a pin, of a casing or body in telescopic sliding sections, one of which has an aperture at one end for the entrance of the pin and provided adjacent thereto with a fixed clamp-releasing device, and a clamping device carried by the interior of the other section to clamp the pin when passed through the said aperture and constructed to release the pin when the body-section to which said releasing device is attached is pressed inwardly and thereby brought into contact with said clamping device.

2. The combination with a pin, of a body or casing in two telescopic sliding sections,

one of which is centrally apertured for the entrance of the pin and provided adjacent thereto with a releasing device, and a transverse spring-clamp within the other section with its free end in the path of the pin to engage and hold it against return movement, and said spring-clamp being freed from the pin when forced against said releasing device by moving inwardly the body member which carries it.

3. The combination with a pin, of a body or casing in two telescopic sliding sections, one of which has a central apertured projection in its bottom for the entrance of the pin and spring pin-clamping arms projecting inwardly from the other body member with their adjacent ends over the end of the said projection to be flexed thereby away from the pin and allow of its removal.

4. The combination with a pin, of a body or casing in two telescopic sliding sections, the outer one of which is provided in its bottom with a central apertured conical projection for the entrance of the pin and flanged inwardly at the margin of the open end over a shoulder on the inner section; a pin-engaging clamp comprising a ring seated in the lower

open end of the upper body-section and having integral spring-arms projecting at their free ends over the apex of the cone and serving to clamp the pin when inserted and also to separate the two sections of the body; the cone serving to free the spring-arms from the pin when the outer body member is pressed inwardly.

5. The combination with a pin, of a body or casing having a central aperture for the entrance of the pin and spring-arms projecting at their free ends toward the aperture and there spaced apart a less distance than the thickness of the pin and adapted to be flexed by the pin and thereby hold it from reverse movement, and a releasing device between the said spring-arms and the apertured end of the body or casing and adapted to engage the spring-arms and further flex them to disengage them from said pin and permit its withdrawal; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HANCOCK.

Witnesses:

O. C. HEIDE,
W. A. RICE.