

No. 743,690.

PATENTED NOV. 10, 1903.

J. W. CASPER & W. GERDER.
SAFETY PIN.

APPLICATION FILED APR. 7. 1903.

NO MODEL.

Fig. 1.

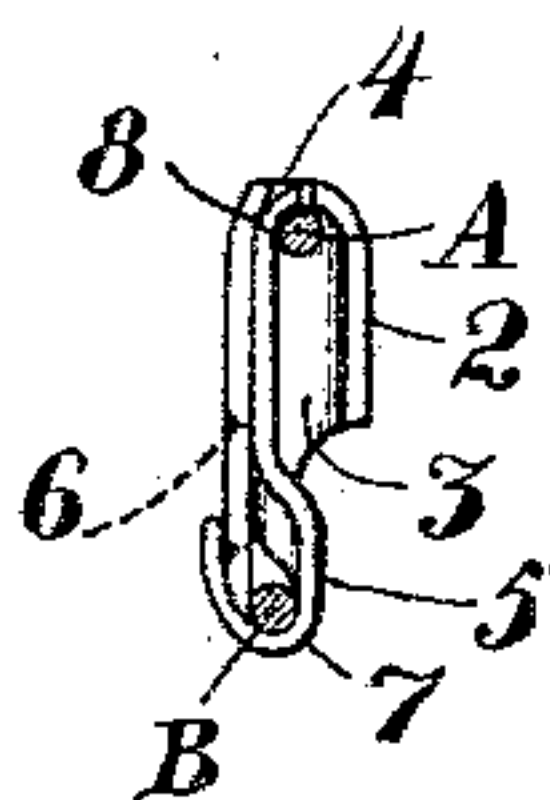
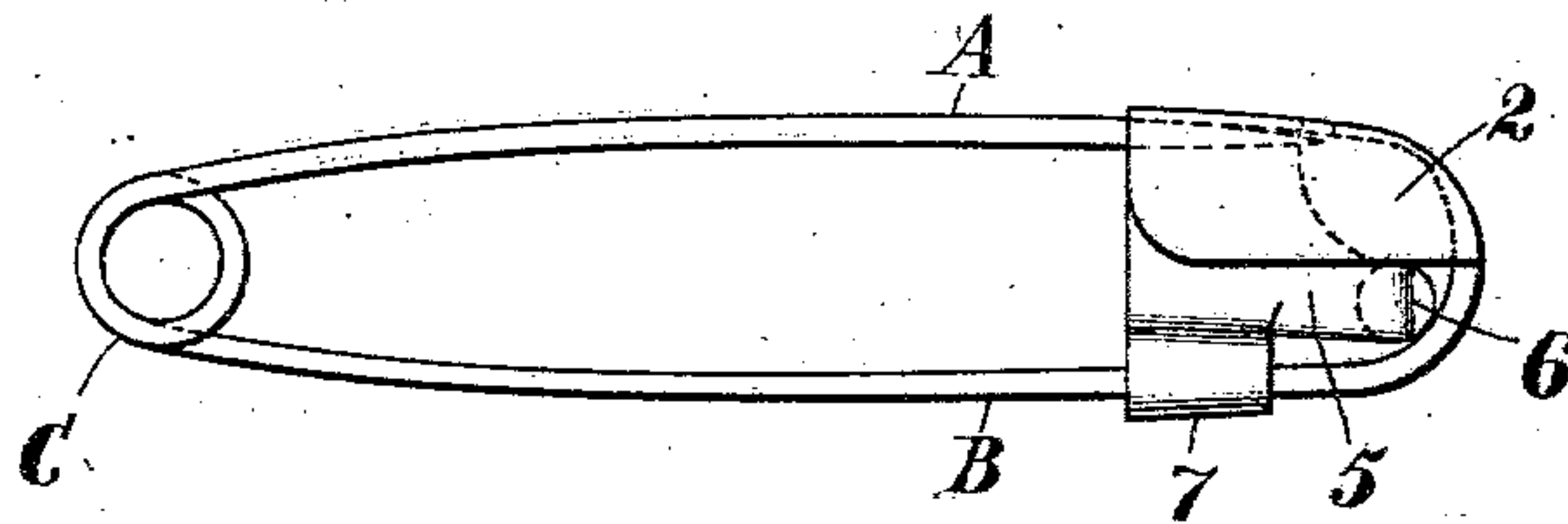


Fig. 2.

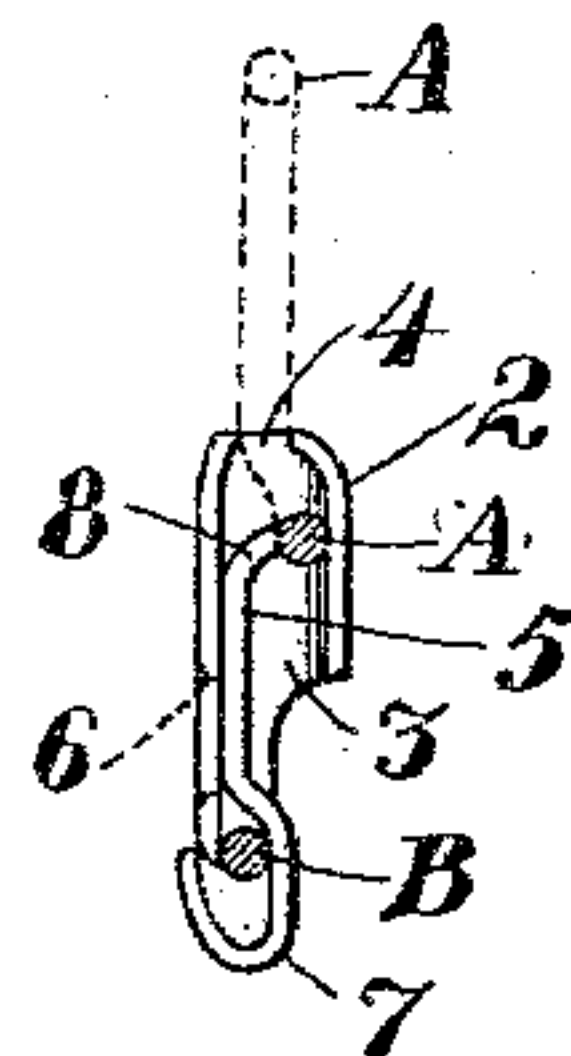


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH W. CASPER AND WILLIAM GERDER, OF SACRAMENTO, CALIFORNIA.

SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 743,690, dated November 10, 1903.

Application filed April 7, 1903. Serial No. 151,534. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH W. CASPER and WILLIAM GERDER, citizens of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Safety-Pins; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to an attachment for safety-pins which enables the user to easily disengage the pin from the inclosing tip into which it is forced by the elasticity of the parts.

It consists in forming the inclosing tip into which the point of the safety-pin is forced by elasticity with an open slot in the part against which the pin normally rests and in conjunction therewith of a hinged or pivoted plate, which is normally interposed to prevent the pin from passing out from said slot. By withdrawing the plate a little the slot is left open and the point of the pin will be forced through it and released.

Referring to the accompanying drawings, Figure 1 is a side view of the safety-pin, showing the locking-plate. Fig. 2 is a transverse section of the cap and plate, showing the end of the pin within the cap and retained by the plate. Fig. 3 is a section showing the manner of releasing the point A.

Safety-pins are commonly formed by bending a wire to form an elastic coil at a point about the center, securing to one of the ends a cap open upon one side, and the other or pointed end of the wire is adapted to enter the open side of the cap and remain within the inclosed head portion by means of its elasticity. Thus after the pointed portion has been pushed through the parts to be secured it is sprung into the cap, and it is held in place and the point protected. It is sometimes difficult to disengage such pins by springing them back to the open side; and it is the object of our invention to provide for the easy release of such pins, which will separate and fly open by their own elasticity when released.

As shown in the drawings, A and B are the two members of the pin, having a coil or equivalent elastic portion at the bight or turn C, which acts to normally separate the two members of the pin to stand at an angle.

2 is a cap secured to the non-pointed member of the wire, said cap having an opening on one side, as at 3, so that the pointed member A of the pin may when compressed close to the member B enter the opening on the side, and when pressure is released it will spring up into the closed part of the cap. Ordinarily it is necessary to again compress the members of the pin and draw the pointed portion sidewise through the opening 3 in order to release it.

In our invention we have made a slot 4 in the top of the cap 2, this slot being of sufficient length and width to allow the point of the pin member A to pass freely through it when not obstructed. In order to retain the pin within the cap when desired, we have shown an obstruction which closes this slot 4. The obstruction consists of a plate or arm 5, which normally lies in such position as to cover this slot 4 and prevent the pin from passing out. This stop-plate is pivoted, as shown at 6, and is turnable about its pivot, so as to be withdrawn sufficiently to allow the pin to pass the plate and to escape through the slot.

As shown, in the present case the outer end of the plate is perforated and is pivoted within the outer end of the cap 2 by indenting the sides of the cap, so that the inwardly-projecting indented points enter the hole formed in the outer end of the plate, and thus form the pivot upon which the plate is turnable, as plainly shown in cross-section at 6; but it will be manifest that the plate may be otherwise pivoted.

The front end of the plate or that part farthest from the pivot-point is bent, so as to inclose the member B of the pin, as shown at 7, this inclosing portion being made oval in the line of movement of the plate, so as to allow the latter to turn about its pivot.

The upper portion of the plate, as shown, is preferably curved slightly, as shown at 8, and this curved portion normally lies across and closes the slot 4 in the top of the cap 2, so that when the pin A has been passed through the parts to be secured and entered into the cap through the side opening 3 it rises by its elasticity into the upper closed portion of the cap and contacts with the curved portion 8 of the stop-plate and is prevented from escaping from the cap.

Whenever it is desired to release the pin, it is only necessary to pull down upon the turned-over portion 7, which incloses the wire B, and the plate will be withdrawn far enough to allow the point of the pin to pass the stop portion 8 and escape through the slot 4, as in Fig. 3.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A safety-pin having the elastic separable members, a cap fixed to one of said members and having a slot in its top and an opening in one side to admit the pointed end of the other member, and a stop-plate between said members and having one portion extending into the cap and contained between the inner walls thereof, and having its upper portion turned to one side to normally obstruct the slot from below, said stop-plate pivotally secured to move in a path parallel

with the side walls of the cap, to release the pin member confined in said cap.

2. A safety-pin having the elastic separable members, a cap fixed to one of said members and having a slot in its top and an opening in one side to admit the pointed end of the other member, and a stop-plate between said members, having one portion extending into the bottom of the cap and having a curved extremity to normally obstruct the slot from below, said plate pivotally secured to move in a path parallel with the sides of the cap and having a second portion to hook over the member to which the cap is fixed.

In witness whereof we have hereunto set our hands.

JOSEPH W. CASPER.
WILLIAM GERDER.

Witnesses:

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