

No. 748,333.

PATENTED DEC. 29, 1903.

C. ANDRESEN.
SAFETY PIN.

APPLICATION FILED MAY 18, 1903.

NO MODEL.

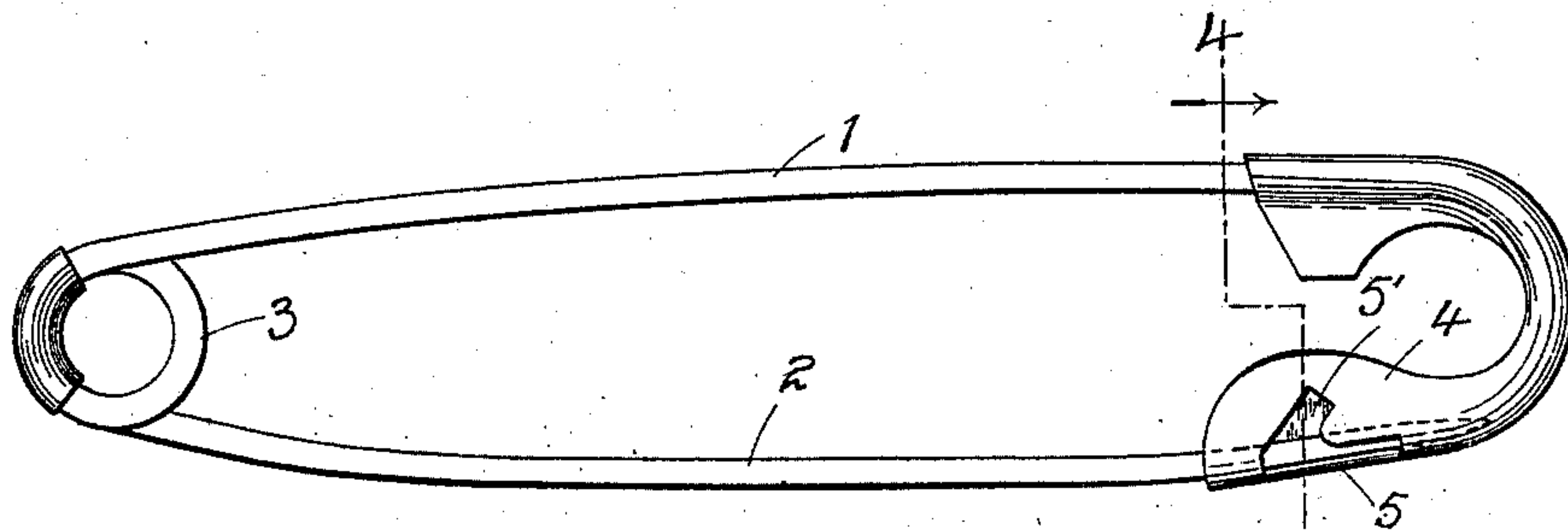


Fig. 1.

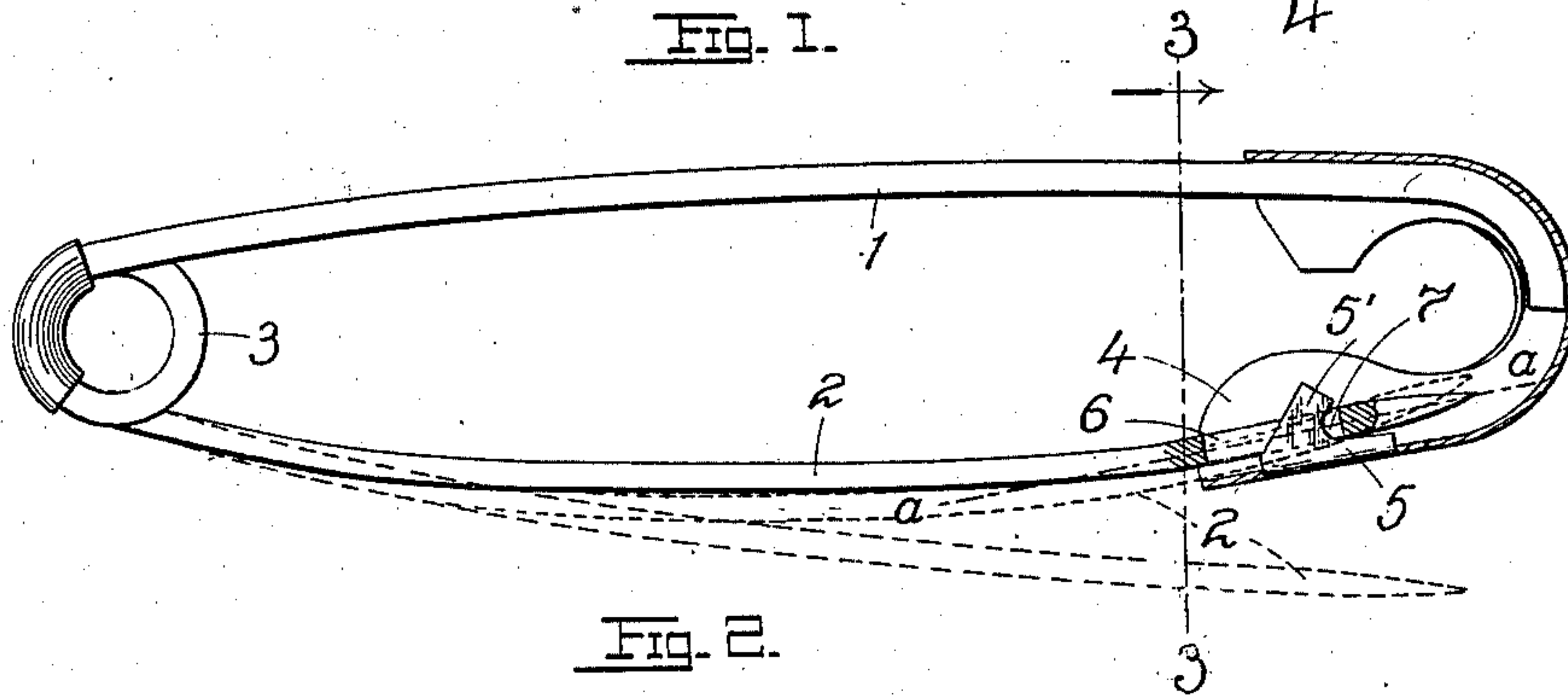


Fig. 2.

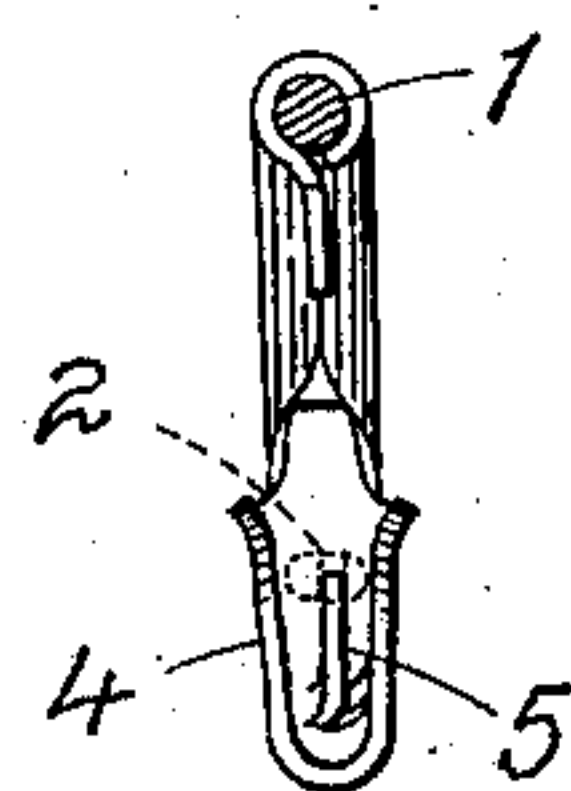


Fig. 3.



Fig. 5.

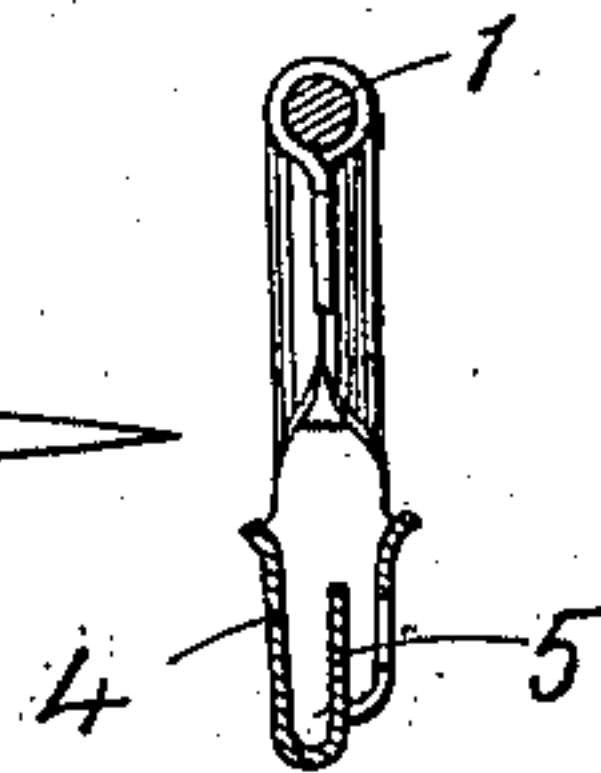


Fig. 4.

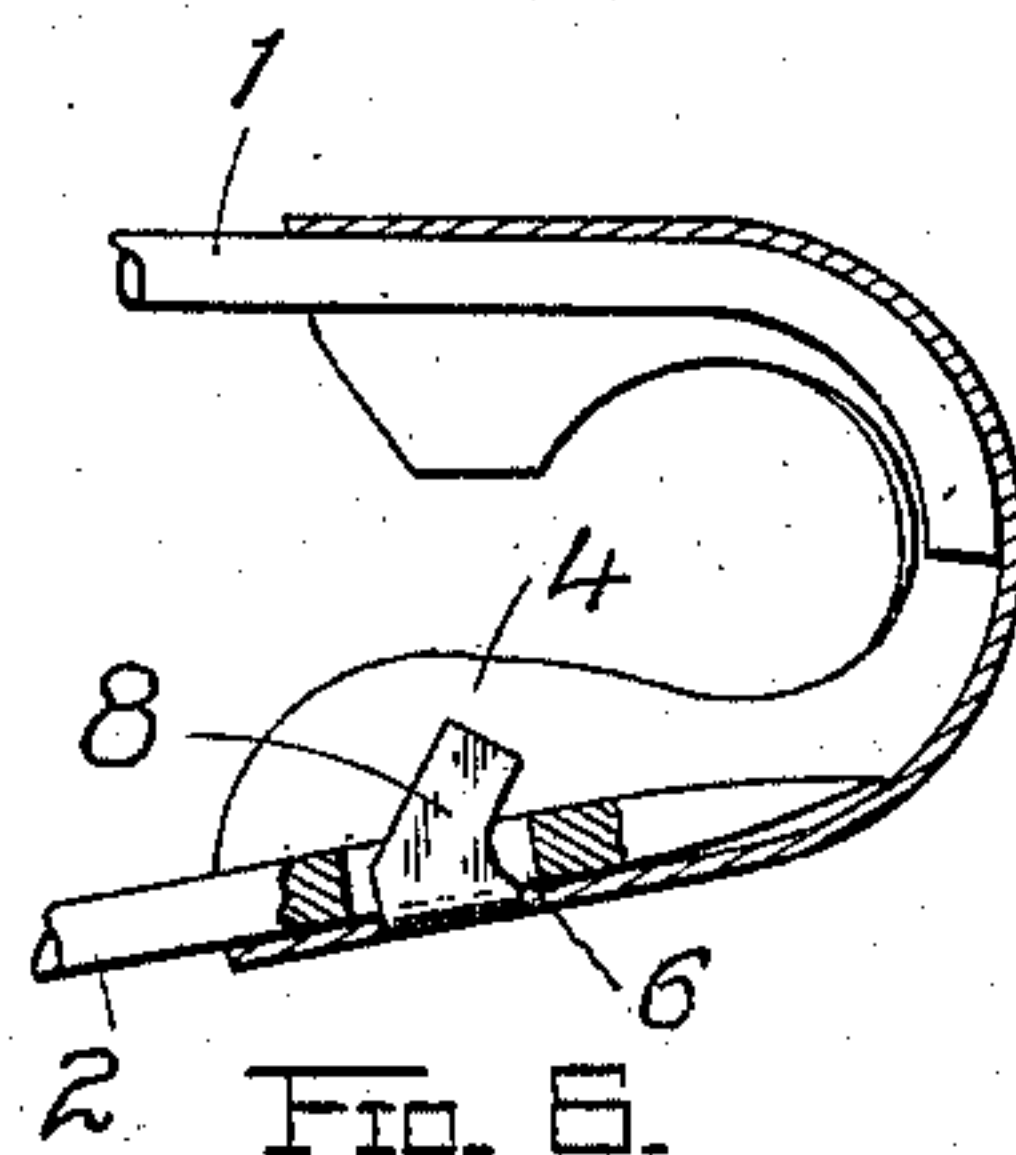


Fig. 6.

WITNESSES:

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SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 748,333, dated December 29, 1903.

Application filed May 18, 1903. Serial No. 157,644. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN ANDRESEN, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Safety-Pins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in safety-pins; and it consists in the novel construction of pin more fully set forth in the specification, and pointed out in the claims.

In the drawings, Figure 1 is a plan of the pin when locked, showing the position of the piercing member under usual or normal conditions. Fig. 2 is a middle longitudinal section showing the position of the piercing member when deflected under two different strains or loads, the full position of the piercing member representing the deflection under one load, the intermediate dotted position showing the deflection under a heavier load, and the extreme dotted position showing the open position of the piercing member. Fig. 3 is a cross-section on line 3 3 of Fig. 2 with the piercing member shown dotted and in position to pass over the tongue. Fig. 4 is a cross-section on line 4 4 of Fig. 1, the piercing member being, however, omitted for clearness. Fig. 5 is a detail of one end of the piercing member; and Fig. 6 is a sectional detail, showing a modified form of locking-tongue.

The object of my invention is to construct a safety-pin in which the piercing member or prong can be effectively locked within the sheath or pocket by which the point of the pin is received, one in which the strain to which the prong may be subjected shall be distributed through the body of the sheath or pocket, one in which the locking-tongue by which the prong is engaged shall form an integral part of the sheath or be directly carried by it, one in which the line of strain to which the prong may be subjected will be confined within the body of the locking-tongue so as to better resist the tension to which the parts are subjected, one in which the disposition of the body of the locking-tongue shall be in the plane of tension or

draft of the prong, one in which the walls of the sheath shall guide the prong into engagement with the tongue, one in which the prong will be directly supported by the wall of the sheath while in locking engagement with the tongue, and one possessing further and other advantages better apparent from a detailed description of the invention, which is as follows:

Referring to the drawings, 1 represents the stationary member or body portion of the pin, and 2 the piercing member or prong, the two being connected by means of the resilient coil 3, which tends to normally force the prong to an open position. Secured at one end of the body portion is a sheath or pocket 4 for the reception of the point of the piercing member, said sheath being preferably made of a single piece of sheet metal and being of any prevailing form, as shown. Cut or stamped from one of the bounding-walls of the sheath and bent inwardly, so as to occupy a medial position between the two walls of said sheath and removed a suitable distance from the free end of the sheath is a locking-tongue 5, preferably elongated in the plane of the line of draft to which it is subjected by any pull exerted on the prong 2, said tongue having a finger 5', which is adapted to pass through an eye or opening 6, formed in the piercing member adjacent to the point thereof. The tongue is disposed longitudinally with the depression formed between the bounding-walls of the sheath, such longitudinal disposition being likewise parallel to the plane of draft to which the same is subjected by any pull or tension exerted on the piercing member. Moreover, the finger is so located relative to the main body of the tongue that the line of draft referred to will pass through the rear end of the body of the tongue, so that the strain to which said tongue is subjected will be distributed not only throughout the tongue, but also throughout the sheath, of which the tongue forms an integral part. The line of draft is represented by the dotted line *aa* in Fig. 2. Preferably the finger 5' is so formed as to leave behind it a depression 7, which the eye of the prong enters when the latter is unduly deflected under a great strain or

weight, Fig. 2, the prong under normal conditions resting at the bottom of the sheath, as best seen in Fig. 1.

I do not, of course, wish to be limited to the precise form of locking-tongue, and in Fig. 6 I have shown a tongue 8 of smaller dimensions and different in contour from that represented in Figs. 1 to 4, inclusive, and while the tongue is herein shown as cut from the sheath and forming an integral part thereof it is apparent that I may form such tongue of a separate piece of material and rivet or braze the same to the sheath so long as it possesses the mechanical attributes and disposition of the tongue as here described.

I am aware that a safety-pin having a piercing member provided with an eye engaging a terminal hook located in the sheath of the pin is not new; but such a construction cannot possess the commercial advantage of my invention, inasmuch as such a hook is formed at the end of the wire of the stationary member by which the sheath is carried and possesses little power of resistance to the strains to which the piercing member may be subjected. Under a great strain such a hook will either break off or yield, and the locking quality thereof is at once destroyed. In my invention, however, the tongue is disconnected from the wire constituting the stationary member or body portion of the pin, and the strain is consequently distributed through the sheath by which the tongue is carried and to which it is directly secured.

To facilitate the passage of the eye over the tongue, I flare the walls of the sheath slightly outward, as best seen in section in Figs. 3 and 4, so that the tongue will seldom fail to enter the eye, even under the most unfavorable conditions.

It is apparent that a pin of the character described is permanently locked against any strain which tends to draw the prong out of its sheath, and hence a pin once locked will remain in place until removed with the unpinning thereof.

I do not, of course, wish to be limited to the precise details here shown or to the material of which the pin may be constructed or to the number of pieces composing it, as these may be varied without departing from either the spirit or nature of my invention.

As stated above, the prong under normal conditions or under a small strain rests at the bottom of the sheath, Fig. 1; but when unduly deflected under a great strain or weight the finger 5' prevents the disengagement of the prong, since under the circumstances the free end of the prong is simply drawn down while in its deflected position, the end of the

eye entering the recess 7 behind the finger, so that there is no possibility of the pin unlocking under the most trying circumstances.

Having described my invention, what I claim is—

1. A safety-pin comprising a body portion, a piercing member or prong connected thereto, a sheath at one end of the body portion for receiving the point of said prong, the latter having an eye located adjacent to the point, and a locking-tongue carried by the sheath and adapted to enter the eye of the prong, substantially as set forth.

2. A safety-pin comprising a body portion, a piercing member or prong connected thereto, a sheath at one end of the body portion for receiving the point of the prong, the latter having an eye located adjacent to the point, and a locking-tongue projecting from the wall of the sheath and forming an integral part thereof and adapted to enter the eye of the prong, substantially as set forth.

3. A safety-pin comprising a body portion, a piercing member or prong connected thereto, a sheath at one end of the body portion for receiving the point of the prong, the latter having an eye located adjacent to the point, and a locking-tongue located centrally on the sheath and disposed substantially in the plane of the line of draft to which the prong is subjected, said tongue being adapted to enter the eye of the prong, substantially as set forth.

4. A safety-pin comprising a body portion, a piercing member or prong connected thereto, a sheath at one end of the body portion for receiving the point of the prong, the latter having an eye located adjacent to the point, and a locking-tongue located centrally on the sheath and forming an integral part thereof, the body of the tongue being disposed substantially in the plane of the line of draft to which the prong is subjected, said tongue being adapted to enter the eye of the prong, substantially as set forth.

5. A safety-pin comprising a body portion, a piercing member or prong connected thereto, a sheath at one end of the body portion for receiving the point of said prong, the latter having an eye located adjacent to the point, and a locking-tongue for said eye carried by the sheath and removed a suitable distance from the free end of the sheath, substantially as set forth.

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

CHRISTIAN ANDRESEN.

Witnesses:

EMIL STAREK,

MARY D. WHITCOMB.