

No. 759,845.

PATENTED MAY 17, 1904.

C. ANDRESEN.  
SAFETY PIN.

APPLICATION FILED DEC. 16, 1903.

NO MODEL.

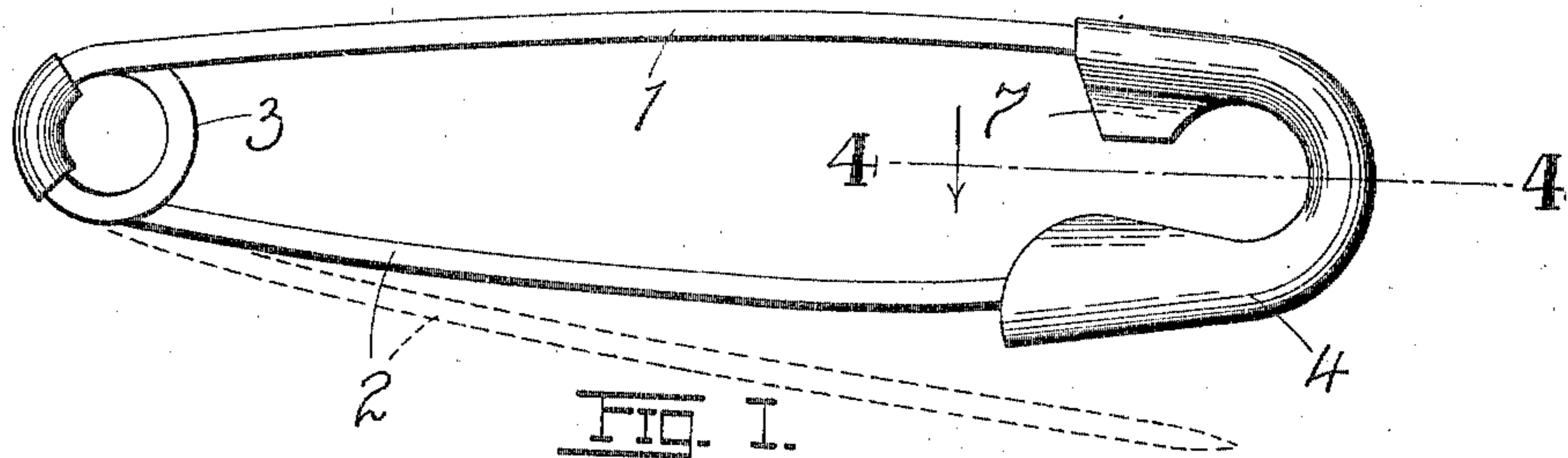


FIG. 1.

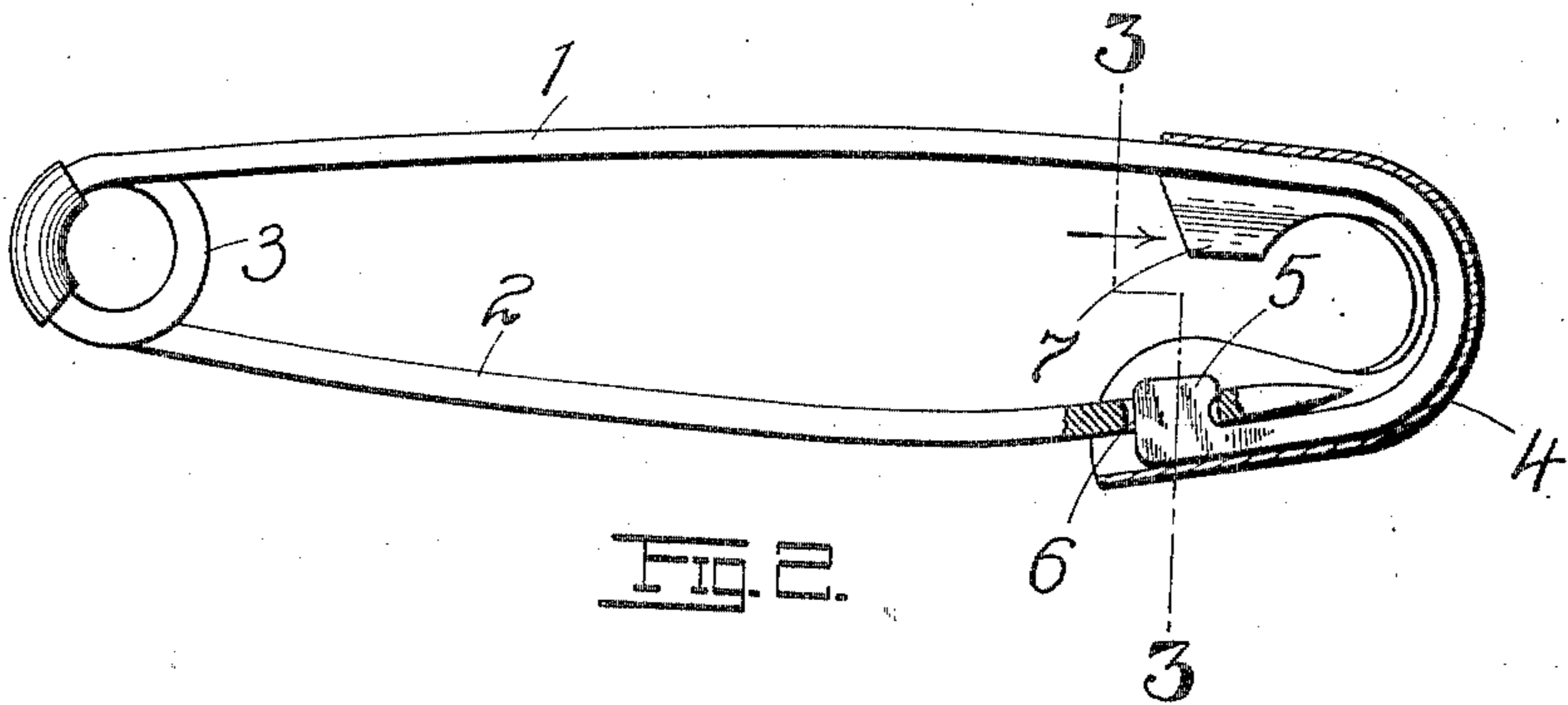


FIG. 2.

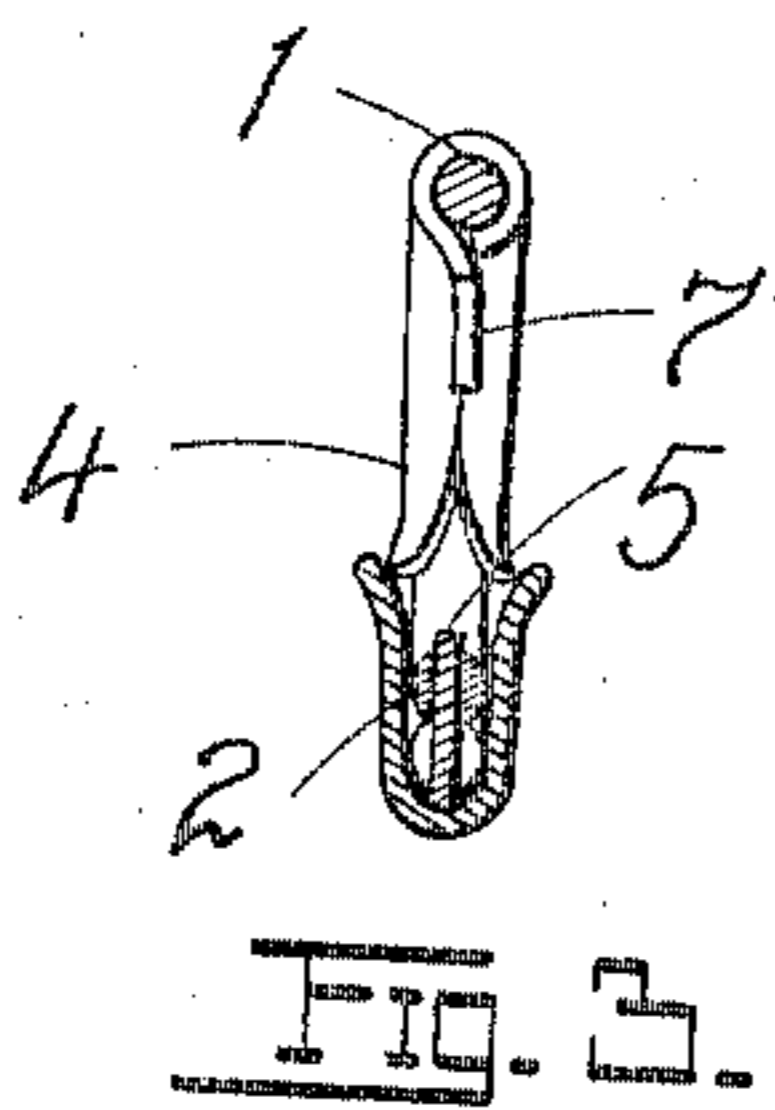


FIG. 3.

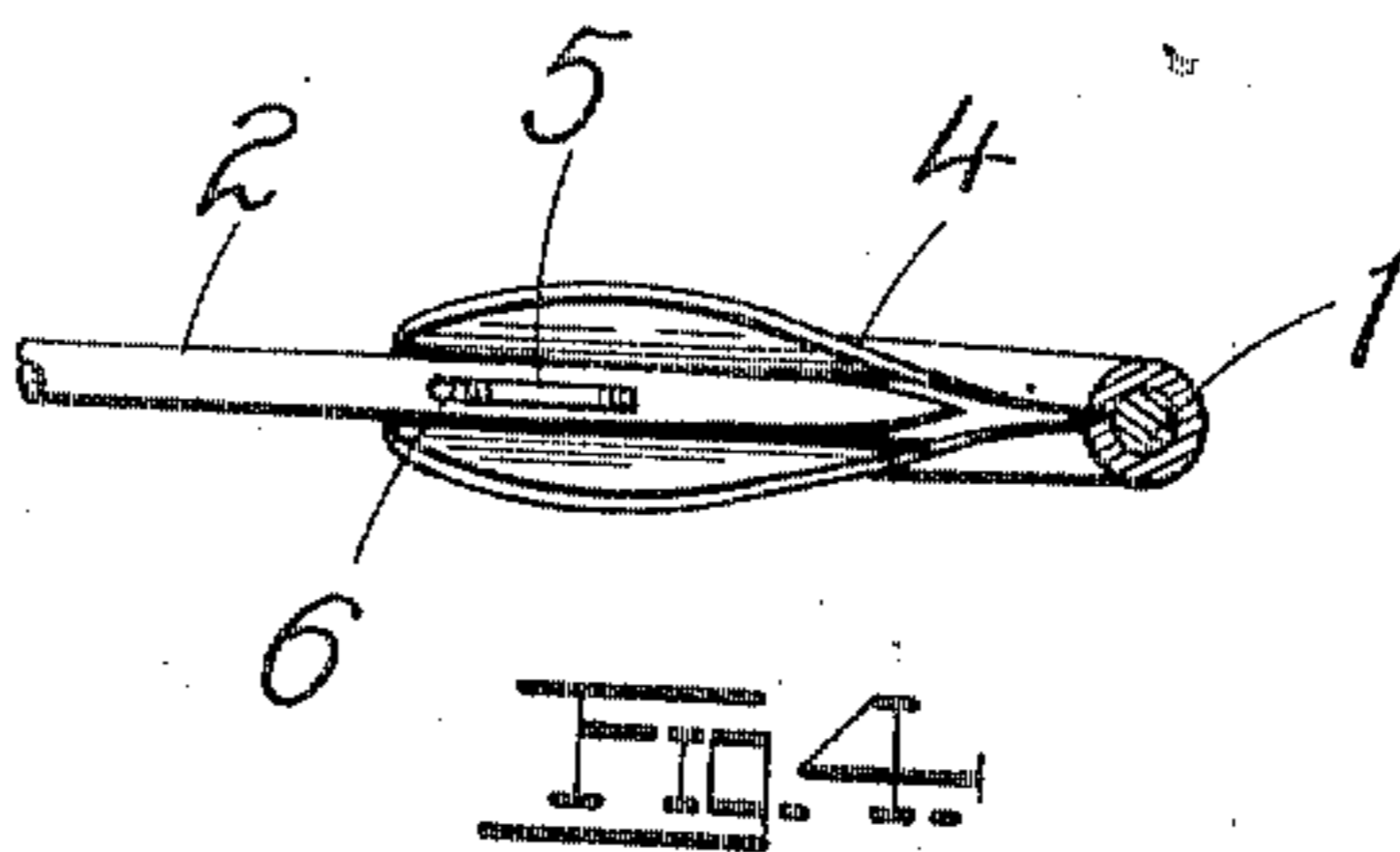


FIG. 4.

WITNESSES:

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## SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 759,845, dated May 17, 1904.

Application filed December 16, 1903. Serial No. 185,418. (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 claim.

In the drawings, Figure 1 is a plan of the pin shown in its locked position. Fig. 2 is a combined plan and longitudinal section of the same. Fig. 3 is a transverse section on line 3 3 of Fig. 2, and Fig. 4 is a horizontal section on line 4 4 of Fig. 1.

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 socket by which the point of the prong is received; one in which the locking-tongue forming an integral part of the stationary member or body portion of the pin shall be disposed in a plane parallel to the line of draft, the maximum dimensions of said tongue being along said line of draft; one in which the dimension of the tongue measured along the wire by which it is carried shall be greater than or equal to the diameter of the cross-section of the wire, thereby reducing to a minimum the danger or possibility of the breaking of the tongue under severe strain, 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, (dotted line, Fig. 1.) Secured at one end of the body portion is a sheath 4, having a socket 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. The wire of the body portion 1 is continued along the inner wall of the sheath to a point adjacent to the free end of the latter, as best shown in Fig. 2. The free end of the continuation of the wire 1 within the sheath is flattened into the form of a terminal tongue 5, adapted to enter or engage the eye 6 in the prong, which eye is located adjacent to the point of said prong. The tongue is disposed with its greatest dimension in the plane of the line of draft to which the prong is usually subjected, so that the pull exerted on the tongue is substantially parallel to such maximum dimension. The dimension here referred to is the measurement of the tongue in a direction conforming to the direction of elongation of the eye 6, it being observed that the eye is a long narrow slit confined between the bounding elements of the cylindrical walls of the wire constituting the member 2, so that the presence of the eye 6 does not materially (if at all) affect the otherwise uniform cross-sectional character of the wire in which it is formed, Fig. 3. As seen from Fig. 2, the base of the tongue, or that portion thereof which merges into the wire 1 proper, when measured in the direction of the line of draft, materially exceeds in dimension the diameter of the cross-section of the wire, this relation being preferred, since under such a construction the tongue better resists the strains to which it is subjected and is not open to the objection inherent in many constructions well known in the art, in which the end of the wire which passes through the eye of the prong is simply deflected or bent from the body of the wire and either tapered down to pass through an eye of normal dimensions or allowed to pass with its full thickness through an eye enlarged or expanded beyond the otherwise uniform dimensions of the prong. The tongue 5, therefore, in the present instance, though forming an integral part of the wire or body portion 1, is shaped so that its greatest dimension is lengthwise with the pin, its thickness being such that it readily passes into the elongated eye 6 of the prong. The latter is guided into

engagement with the tongue by the walls of the sheath-socket within which the point of the prong is received.

5 A tongue of the character here described will resist a maximum strain, since the latter is exerted in a line parallel to its (the tongue's) maximum dimension, and a bending of the tongue is practically impossible, and what is here referred to as a disposition of the tongue  
10 in a plane parallel to the line of draft has special reference to the faces or broad sides of said tongue being in such relation, the narrow edges of the tongue being at right angles to such draft-line, Fig. 3, so that a tongue occupying the relation here subsisting is always  
15 subjected to a shearing strain rather than to a bending one, and before it can bend it will first shear off the wire of which it forms a part. Thus the advantage of the present construction over devices previously referred to  
20 as well known in the art is at once apparent.

Obviously I need not limit myself to the precise details of construction here shown nor to the number of pieces of which any member of the pin may be formed, as these may be  
25 varied according to the skill of the mechanic without in any wise departing from the nature or spirit of my invention. Thus the sheath 4 may be made of two sections. The  
30 extension of the member 1 within the sheath

need not necessarily form an integral continuation of said member. The coil 3 may be replaced by a totally different connection, all as clearly obvious to those skilled in the art.

Having described my invention, what I claim is— 35

A safety-pin comprising a wire body portion, a piercing member or prong of substantially uniform cross-section connected thereto, a sheath at one end of the body portion for  
40 receiving the point of said prong, the latter having an elongated eye located adjacent to the point, and the body portion being extended along the wall of the sheath, and a locking-tongue flattened from the wire of the body  
45 portion within the sheath and disposed in the plane of the line of draft, and having a basal dimension along the wire in excess of the cross-sectional diameter of the latter for resisting the shearing strain exerted by the prong,  
50 the walls of the sheath guiding the prong into engagement with the tongue, substantially as set forth.

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

CHRISTIAN ANDRESEN.

Witnesses:

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G. L. BELFRY.