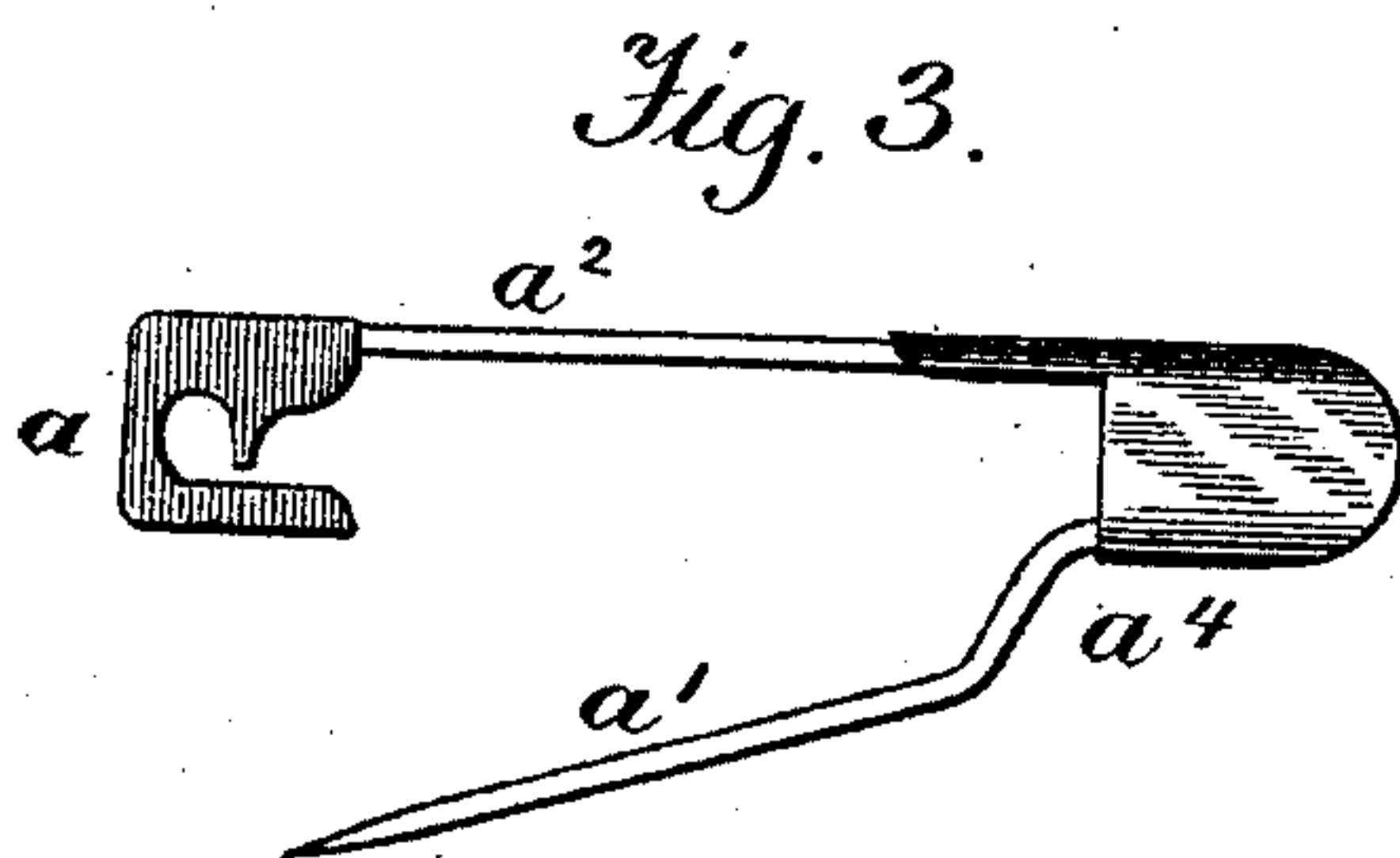
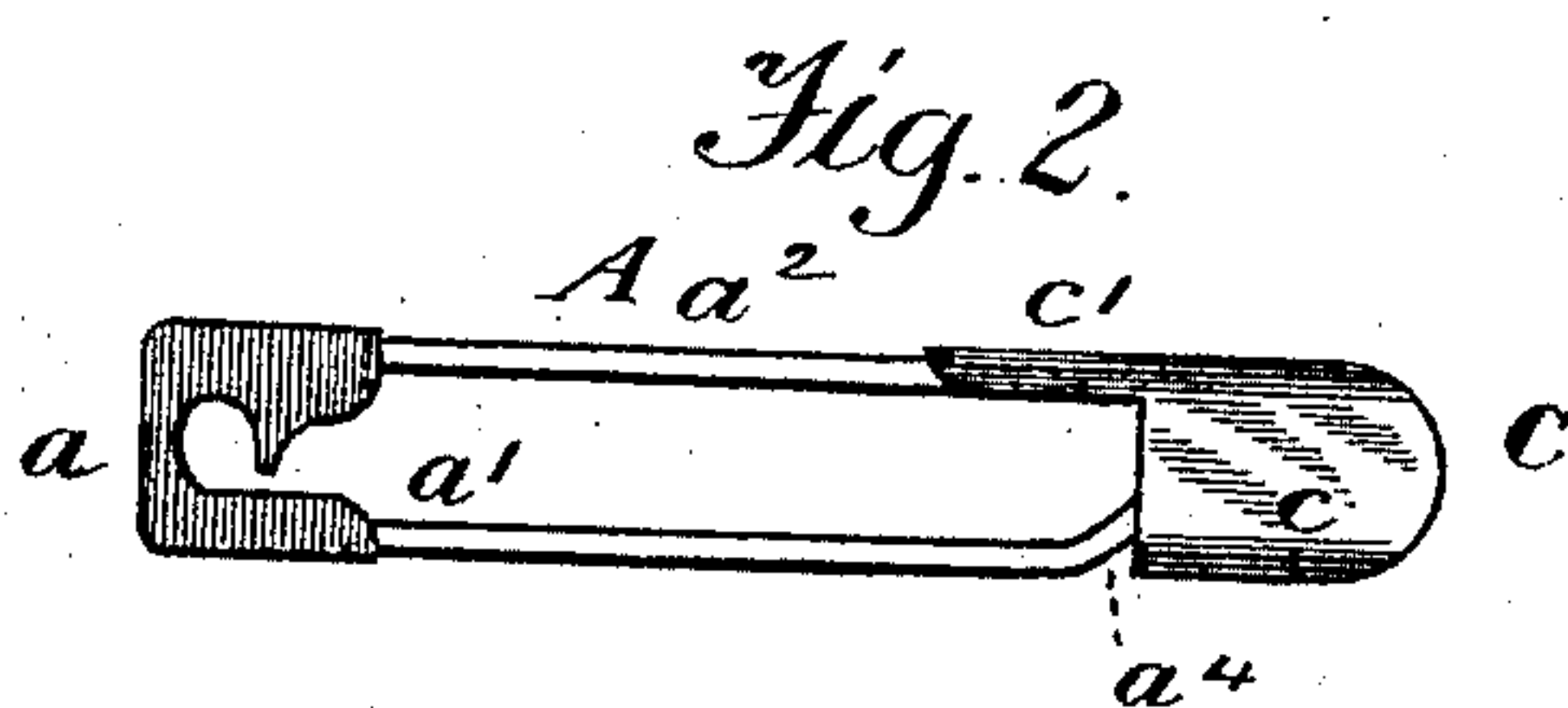
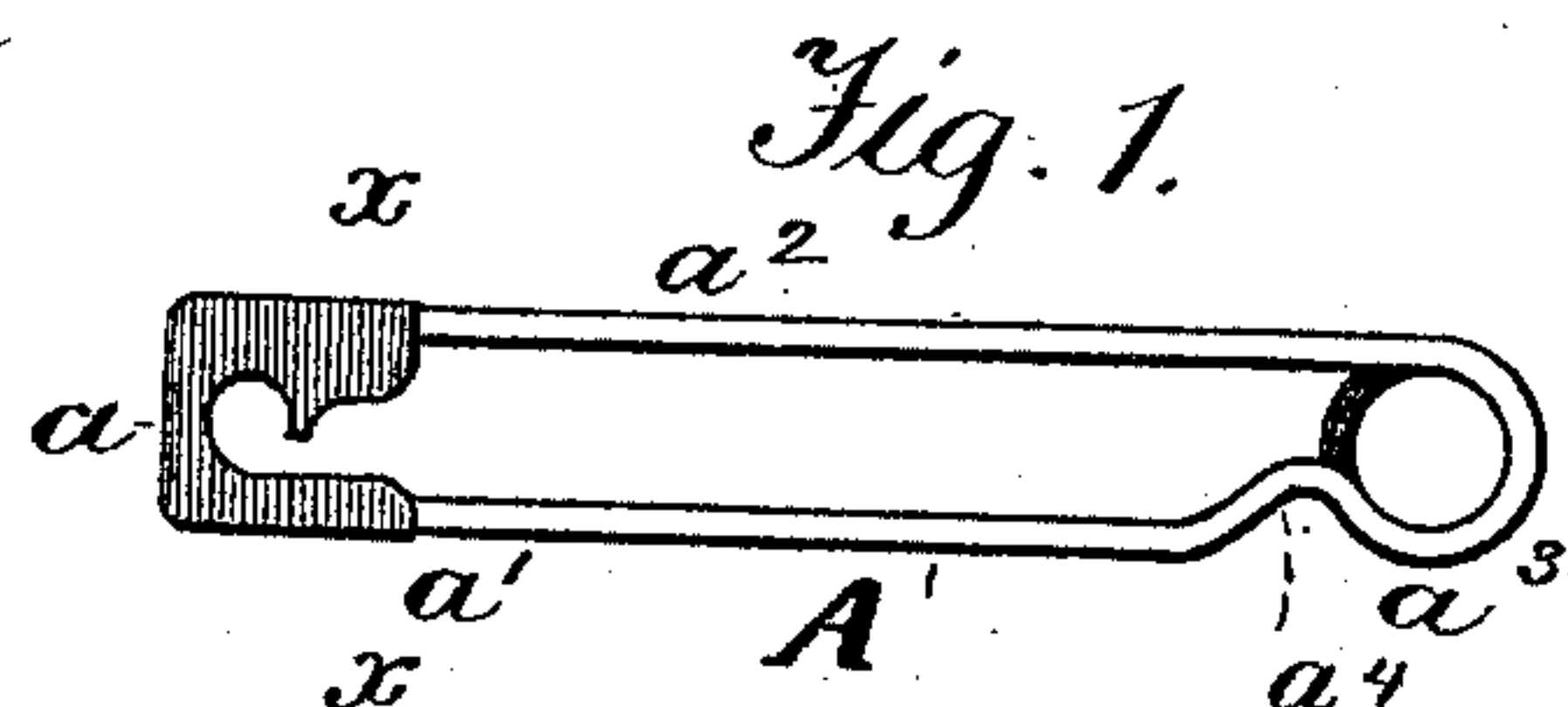


(No Model.)

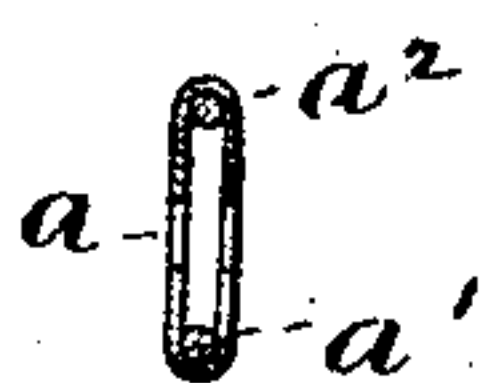
C. E. NOYES.  
SAFETY PIN.

No. 436,377.

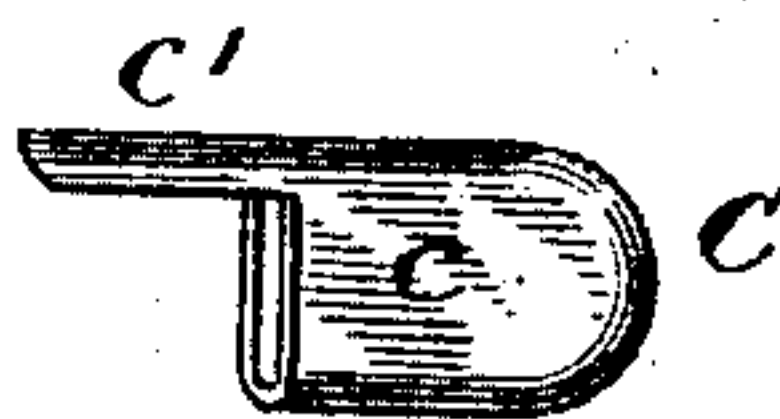
Patented Sept. 16, 1890.



*Fig. 4.*



*Fig. 5.*



*Witnesses.*  
*A. Ruppert,*  
*H. A. Daniel,*

*Inventor.*  
*Clarence E. Noyes*  
*Per*  
*Thomas P. Simpson*  
*Atty.*

# UNITED STATES PATENT OFFICE.

CLARENCE E. NOYES, OF CHESTER, VERMONT.

## SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 436,377, dated September 16, 1890.

Application filed April 1, 1890. Serial No. 346,164. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE E. NOYES, a citizen of the United States, residing at Chester, in the county of Windsor and State of Vermont, have invented certain new and useful Improvements in Safety-Pins; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The special object of the invention is to make a safety-pin in which the clothing will not be liable to catch in the spring-coil.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

Figure 1 of the drawings is a side elevation of the safety-pin without the shield; Fig. 2, a similar view with the shield applied and the pin in its catch; Fig. 3, a similar view with the pin out of its catch; Fig. 4, a cross-section on the dotted line  $xx$  of Fig. 1, and Fig. 5 a detail view of the shield.

In the drawings, A represents the safety-pin with the front catch  $a$  to lock the pin  $a'$  after it has passed through the garment. The pin A has a straight back  $a^2$  until it comes to

the spring-coil  $a^3$ . After the spring-coil has been formed I make on the under side a re-entrant angle  $a^4$ , as clearly shown in Fig. 1 of the drawings.

C represents the shield, which consists of a hollow cap  $c$ , with a projecting saddle-piece  $c'$ , which sits upon the back  $a^2$  of the safety-pin and is soldered thereto so as to fit the wire, as shown in Fig. 2 of the drawings. The cap  $c$  is not open at the bottom, but extends under the angle  $a^4$  until a line from the vertex of the angle let fall upon the bottom edge of the cap would bisect the angle. Thus it will be seen that the pin  $a'$  can freely spring out, when taken from the catch, to a suitable distance, as shown in Fig. 3 of the drawings.

What I claim as new, and desire to protect by Letters Patent, is—

The safety-pin A, having the catch  $a$  at one end, the coil-spring  $a^3$  at the other end, the straight back  $a^2$ , connecting them, and the pin  $a'$ , with the upwardly-concave angle  $a^4$ , in combination with a hollow cap C, surrounding the coil-spring, whereby said pin may work within the cap, as set forth.

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

CLARENCE E. NOYES.

Witnesses:

GEO. LOWELL FLETCHER,  
WARREN L. NOYES.