

(No Model.)

W. H. STIMSON.  
SAFETY PIN.

No. 557,347.

Patented Mar. 31, 1896.

Fig. 1.

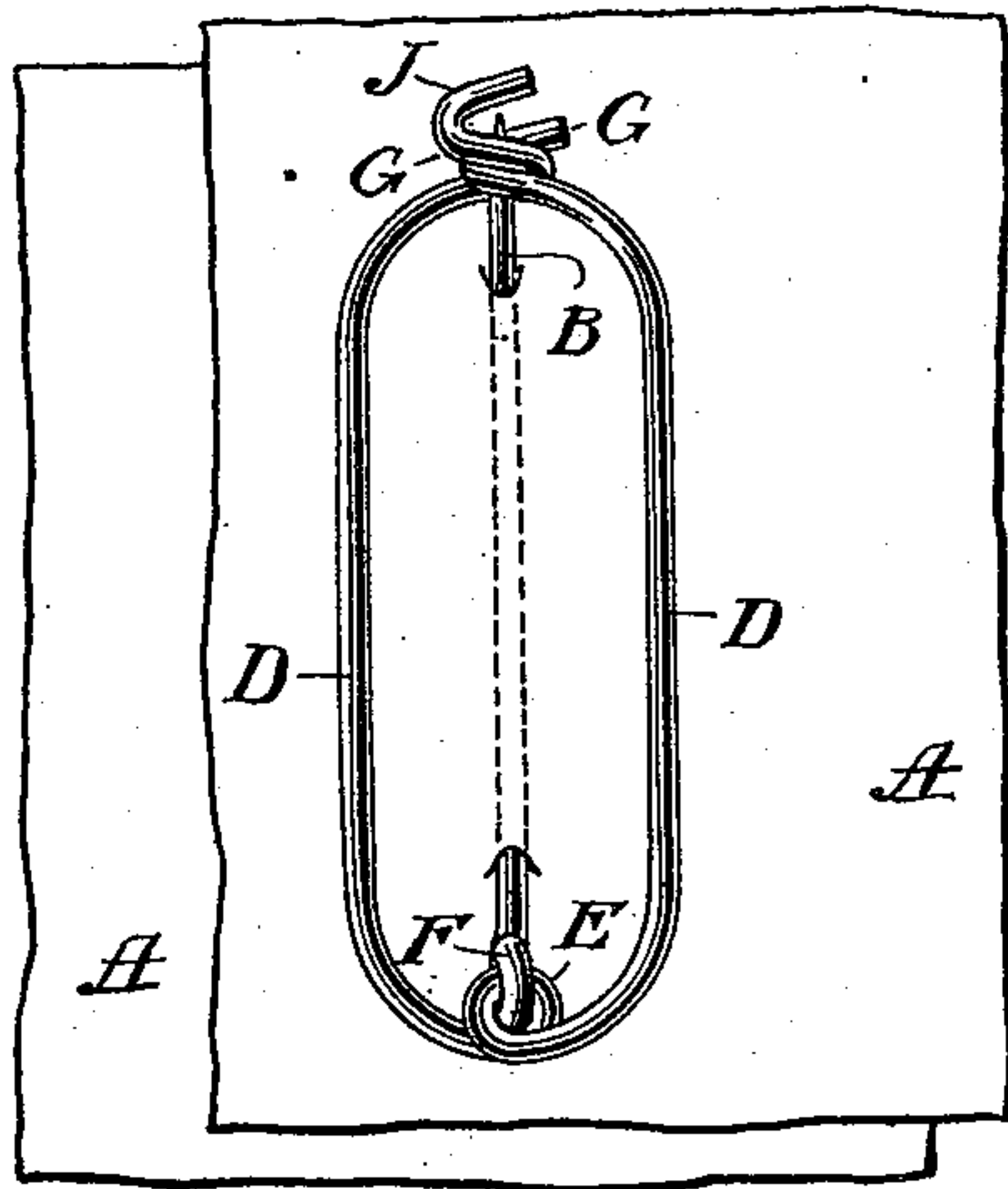


Fig. 2.

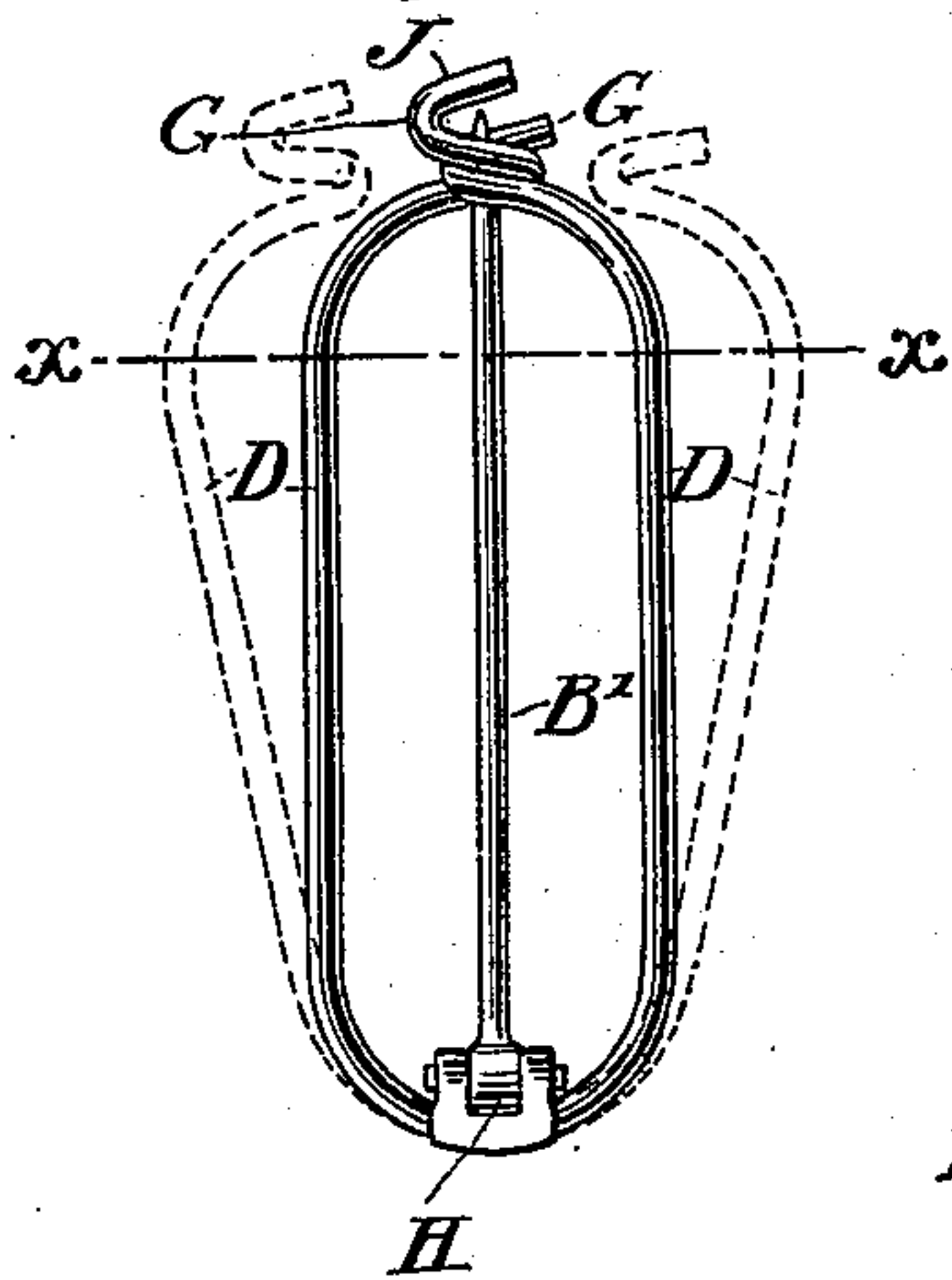


Fig. 4.

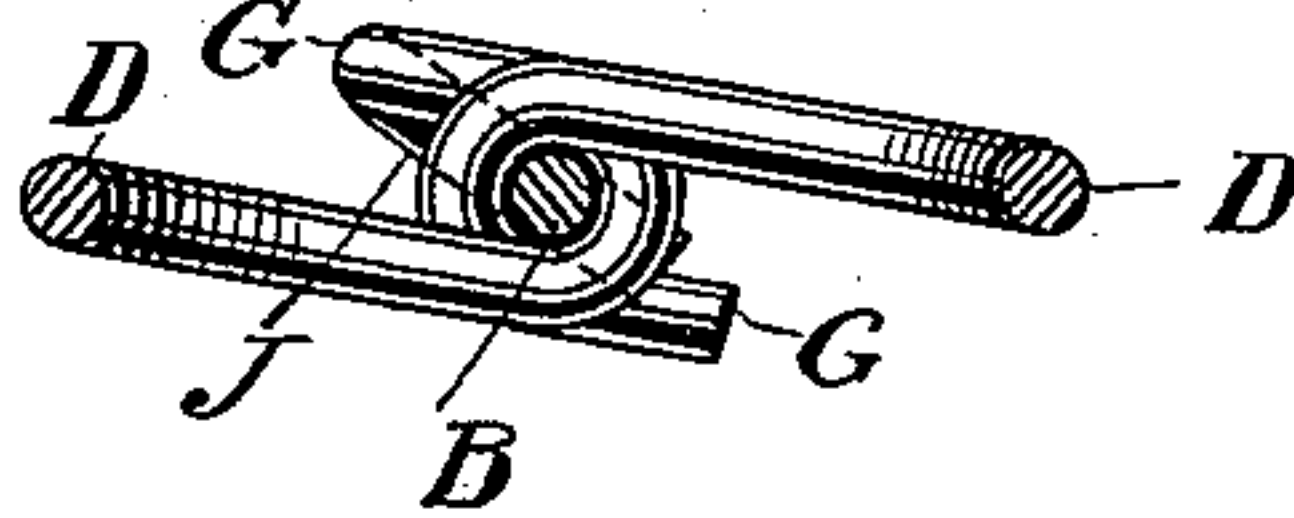


Fig. 6.

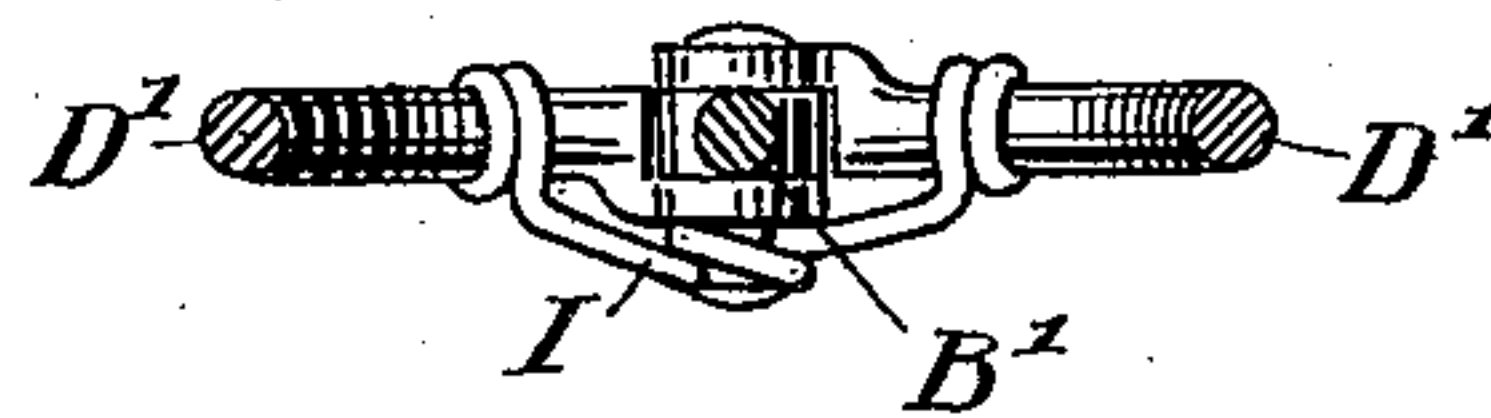


Fig. 5.

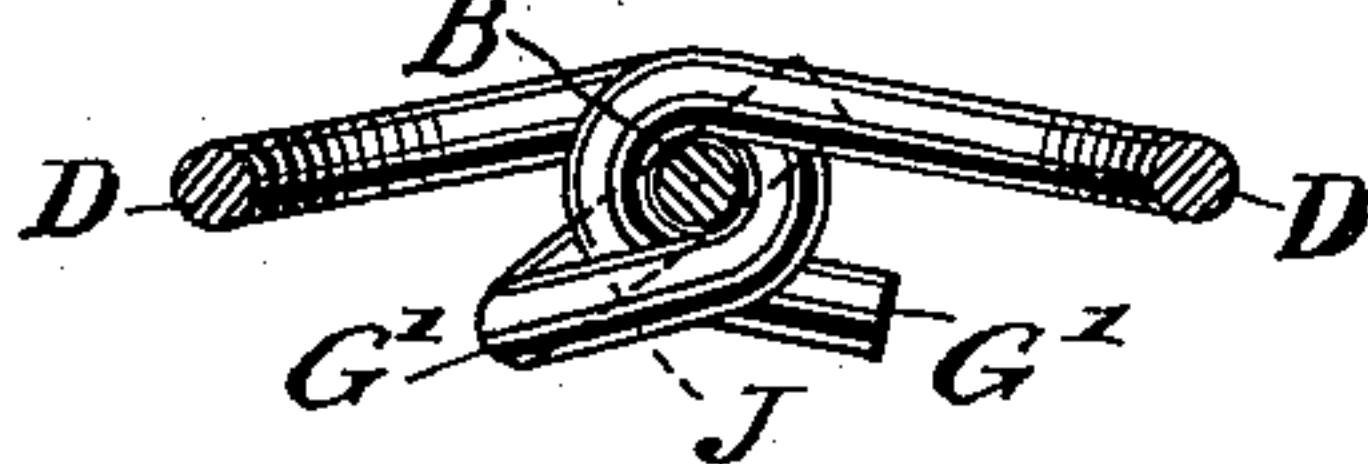
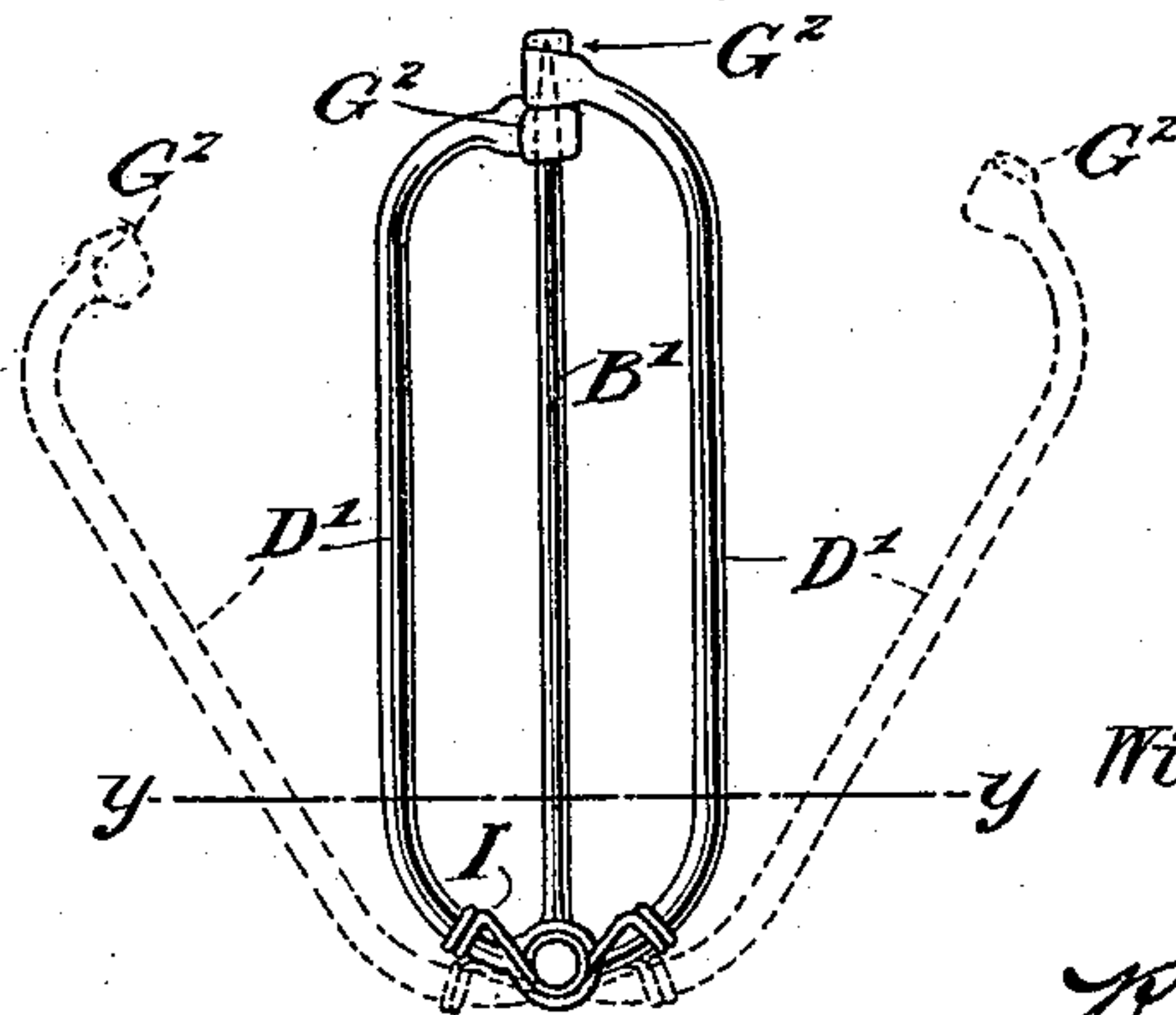


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 557,347, dated March 31, 1896.

Application filed January 28, 1896. Serial No. 577,124. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. STIMSON, a citizen of the United States, residing at New York, in the county and State of New York, have invented a new and useful Safety-Pin, of which the following is a full, clear, and exact specification.

My invention relates to an improvement in safety-pins, bag-fasteners, and the like; and it consists in the novel mechanical construction and arrangement of parts hereinafter fully described.

The object of my invention is to provide a safety-pin which is particularly well adapted for general use, simple in construction, and which, when in operation, cannot become accidentally disengaged by reason of the unique arrangement of the parts, which securely retain both ends of the pin proper.

In addition to the present numerous uses to which safety-pins are commonly appropriated this device may be used for fastening bags, blankets, ladies' belts, and in general may be appropriated to a class of work ordinarily too heavy for the safety-pin commonly in use and in which an extra degree of security is particularly to be desired.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my invention in operation. Fig. 2 is a similar view of the detached safety-pin, showing a slightly-modified construction. Fig. 3 is a similar view illustrating another modification. Fig. 4 is an enlarged sectional view on line *x x*, Fig. 2, showing in perspective the inner surfaces of the upper portion of the invention illustrated in Figs. 1 and 2. Fig. 5 is a similar view illustrating another modification. Fig. 6 is a similar view of the opposite end of the pin, the section being taken on the line *y y*, Fig. 3.

Similar letters refer to similar parts.

In Fig. 1 is illustrated one of the simplest and most effective forms of my invention when it is desired to appropriate the same to ordinary use. In the said figure, A A represent thicknesses of material pinned together.

B is a pin penetrating said material. The said pin B is hung in a frame composed of

bowed side arms D D connected at one end of the frame and disunited and hooked at the opposite end, as and for the purpose herein-after described.

E is a loop formed in the lower end of the frame, as shown in Fig. 1.

F is a loop formed at the blunt end of the pin B and linked through said loop E. The disunited extremities of the bowed side arms D D are provided with hooks G G, so that in operation, when the pin B has been thrust through the material of the garment or article to be secured, as shown in Fig. 1, the disunited end of one side arm D may be hooked around one side of the pin near its point, as shown. The disunited end of the other side arm D is then moved toward the parts thus assembled and hooked around the opposite side of the pin.

From the above it will be seen that the blunt end of the pin is held in the frame permanently, while the opposite end, when in operation, is held in an equally secure manner by means of the hooks at the extremities of the bowed side arms, said hooks grasping the pin from opposite sides, thus completely encircling said pin and preventing its disengagement until the proper time.

The hooks G G are by preference formed by right-hand turns; but it is obvious that the same may be both left hand, or one right and one left, the latter being shown in Fig. 5, the hooks being indicated by the letters G' G'.

The normal tendency of the disunited ends of the bowed side arms D D, by preference, should be to spring apart, as illustrated in the dotted line shown in Figs. 2 and 3, so that when the parts are assembled, as indicated in the solid lines in Figs. 1, 2 and 3, the hooked extremities of the side arms will engage the pointed end of the pin from opposite sides under constant tension.

If it is not desired to attach the pin B', Fig. 2, to the frame by the loop connections shown in Fig. 1, it is obvious that a hinged connection H may be substituted.

In Fig. 3 a modification is illustrated in which not only is the pin B' connected to the frame by a hinged connection, but the side



arms D' D' are also hinged on a common bearing with the pin B'. In this case it may be desirable to provide a separate spring I to normally cause the side arms D' D' to spring apart, as indicated in the dotted lines in Fig. 3.

It is obvious that it is not absolutely essential that the side arms be formed so as to normally spring apart, for the reason that the desired end would be accomplished in any event should the bulk of the material which lies between the sides of the pin and the adjacent inner sides of the side arms be sufficiently great to require the bowed side arms to be sprung together in order to hook the disunited extremities around the pin.

In Fig. 3, instead of forming the hooks G<sup>2</sup> G<sup>2</sup> by simply bending the wire side arms, the ends of the same are first flattened and then bent, and may engage the pin at points directly opposite or at points above and below, as indicated in said figure, the outer bend protecting the point of the pin.

In Figs. 1 and 2, J is an additional bend extending over and protecting the point of the pin B; but it is obvious that any equivalent means may be substituted to accomplish the same end.

It is apparent that in carrying out my invention some changes in the particular construction shown and described may be made. For instance, instead of wire the article may be formed of sheet metal and provided with any suitable ornamentation or design, and I would therefore have it understood that I do not limit myself to the specific form shown, but hold myself at liberty to make such changes as are fairly within the spirit and scope of my invention.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. A safety-pin comprising side arms connected together at one end, and a centrally-arranged pin member between said side arms, and independent means at the free end of each of said side arms for detachably engaging the free end of said pin.

2. A safety-pin comprising spring side arms connected together at one end and a centrally-arranged pin member between said side arms, and independent means at the free end of each of said side arms for detachably engaging the free end of said pin, substantially as described.

3. A safety-pin comprising side arms connected together at one end and a centrally-arranged pin member hinged between said side arms, and independent means at the free end of each of said side arms for detachably engaging the end of said pin, substantially as described.

4. A safety-pin comprising side arms hinged together at one end, and a centrally-arranged pin member hinged between said side arms, and independent means at the free end of each of said side arms for detachably engaging the free end of said pin, substantially as described.

5. A safety-pin comprising spring side arms hinged together at one end, and a centrally-arranged pin member hinged between said side arms, and independent means at the free end of each of said side arms for detachably engaging the free end of said pin.

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Witnesses:

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