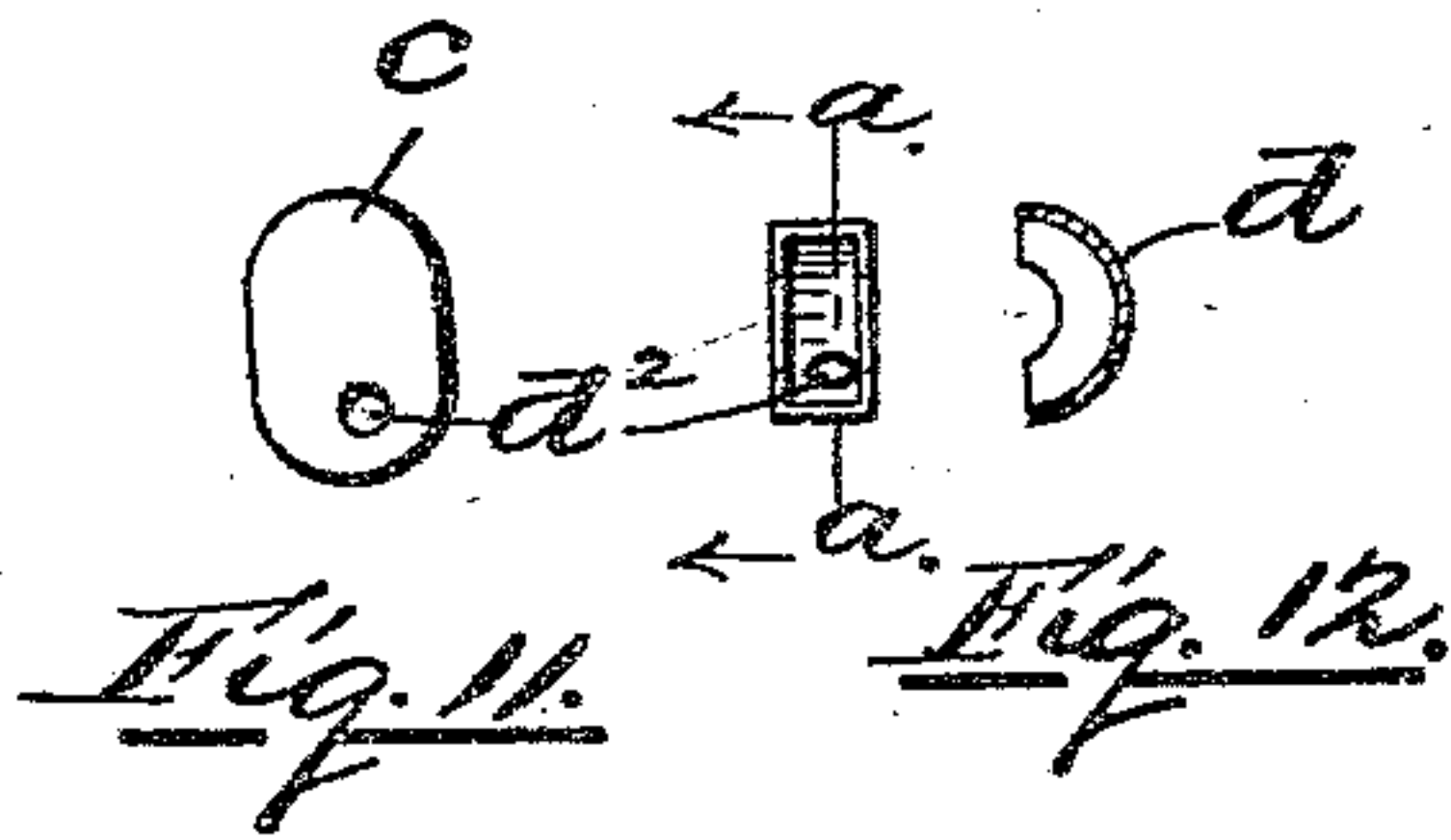
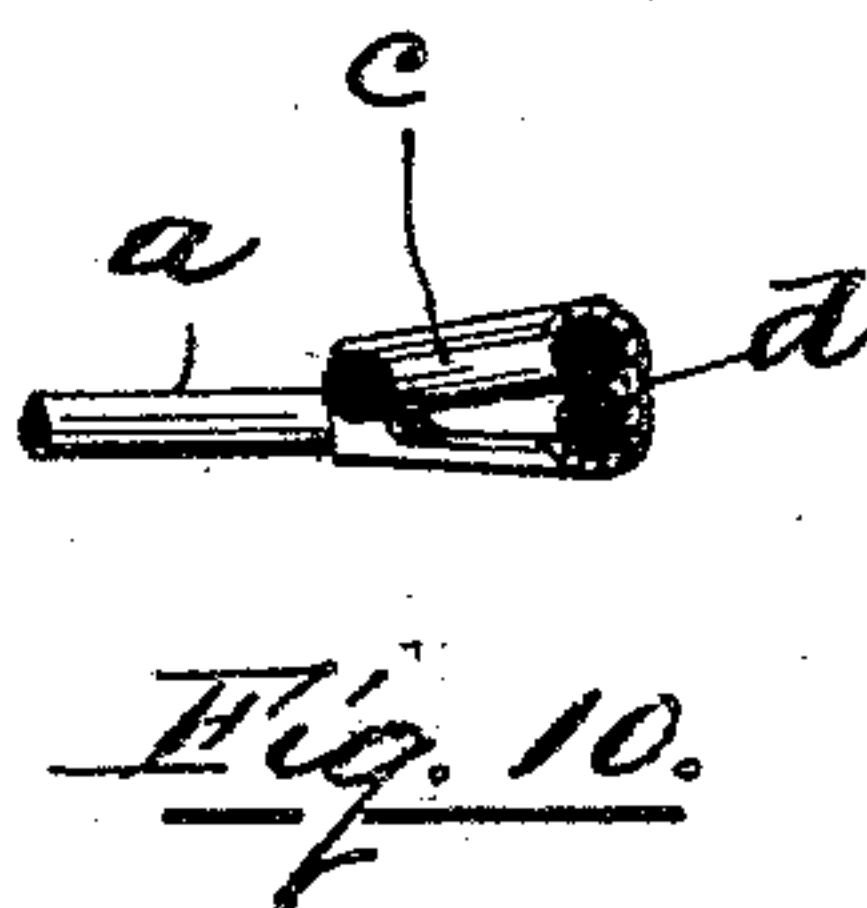
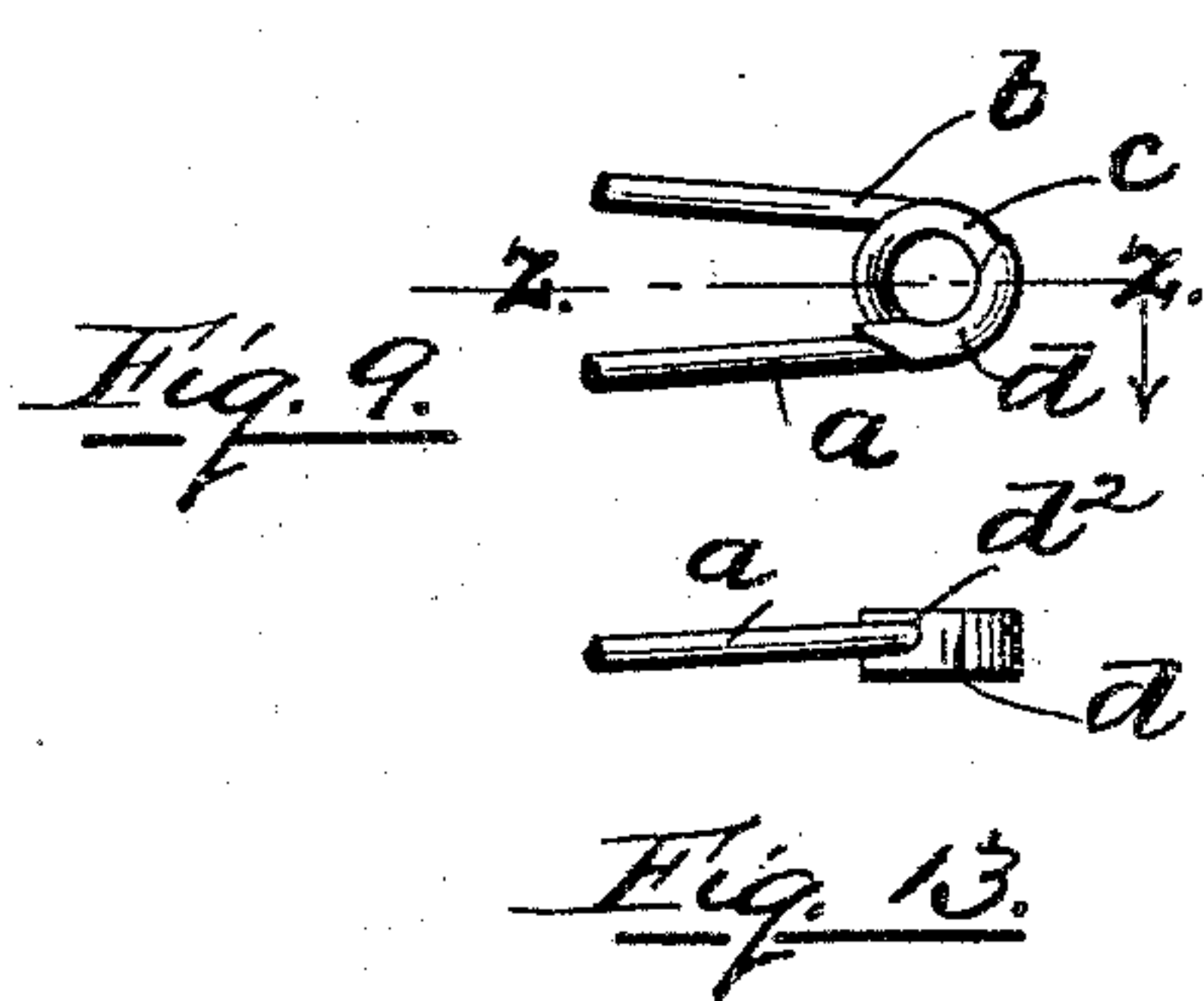
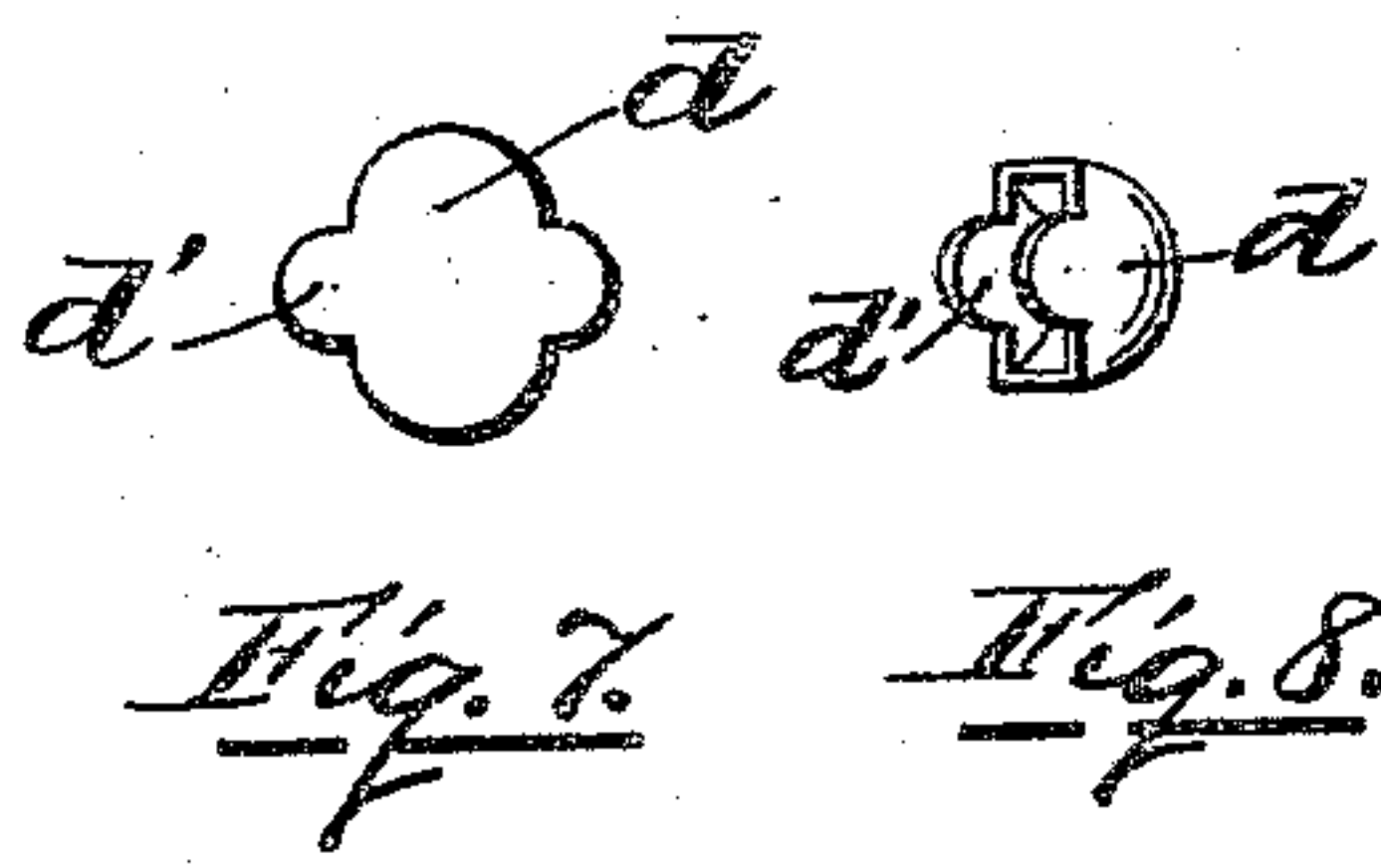
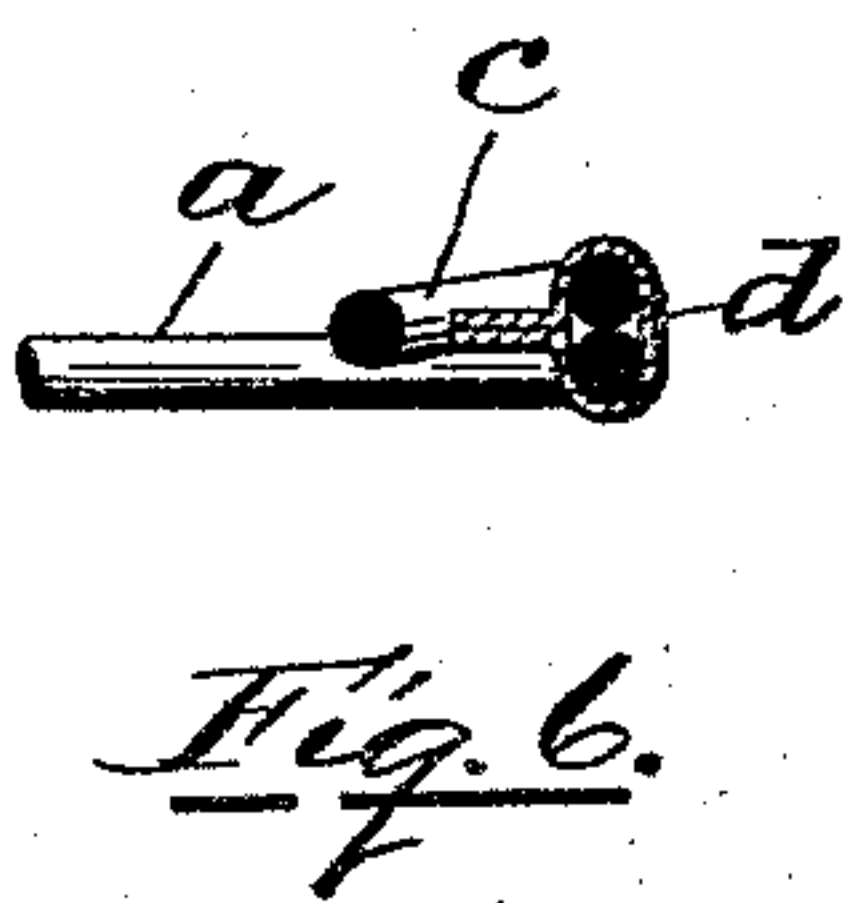
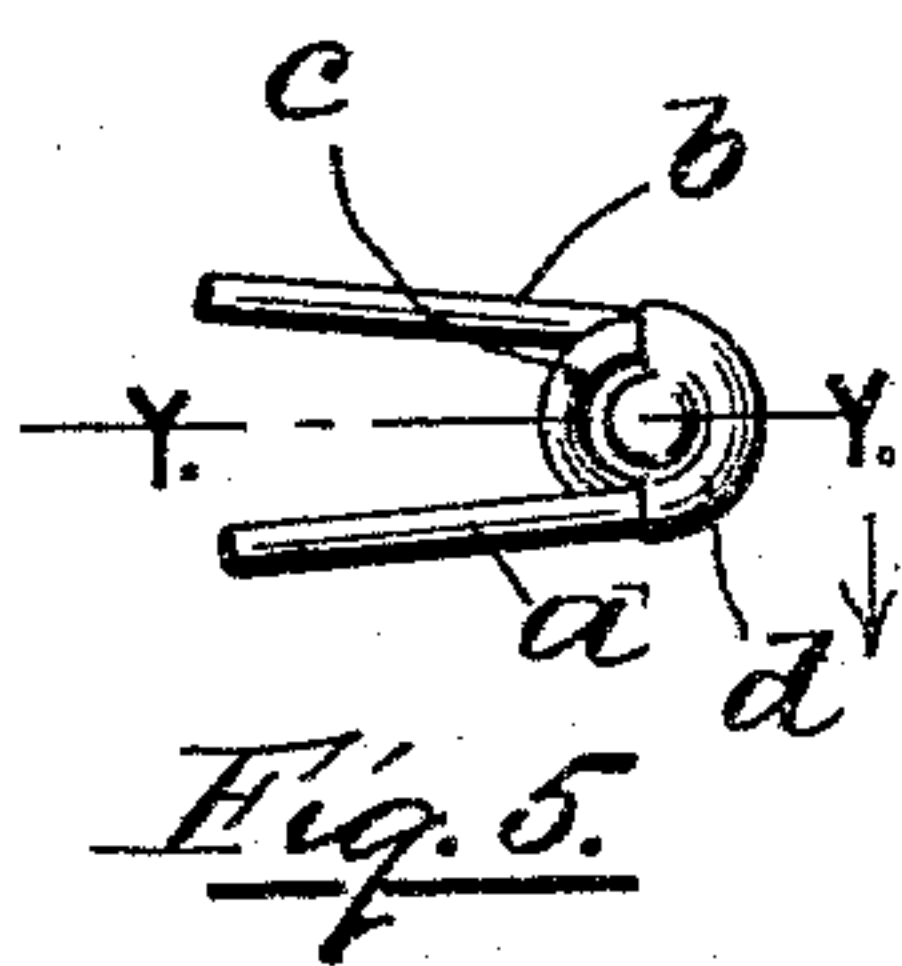
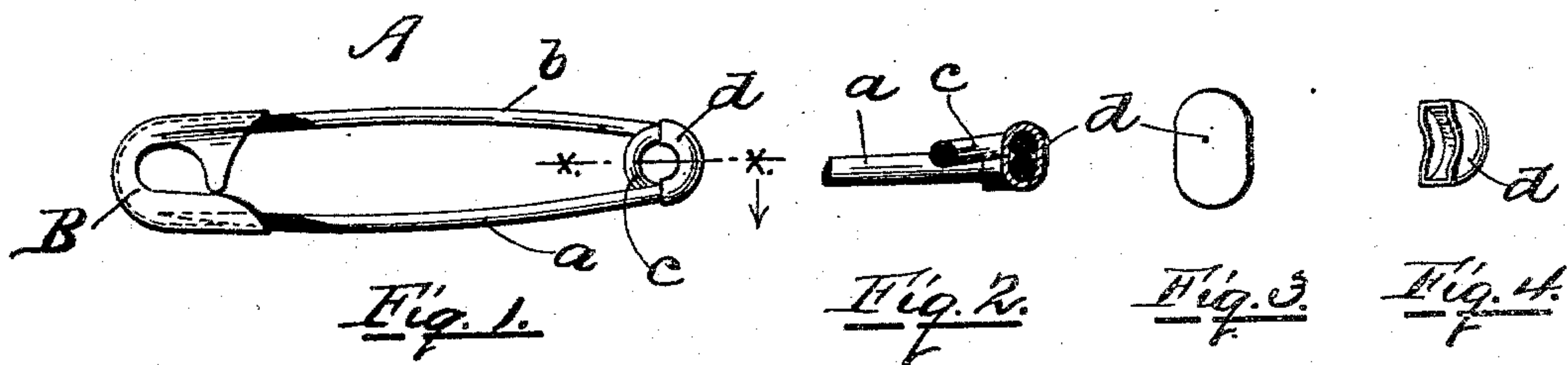


(No Model.)

G. BODEN.
SAFETY PIN.

No. 553,049.

Patented Jan. 14, 1896.



Witnesses:

Charles Lammigan
S. J. Murphy

Inventor:

George Boden
By Wilmarth H. Thurston
Atty.

UNITED STATES PATENT OFFICE.

GEORGE BODEN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE OAKVILLE COMPANY, OF SAME PLACE.

SAFETY-PIN.

SPECIFICATION forming part of Letters Patent No. 553,049, dated January 14, 1896.

Application filed November 8, 1893. Serial No. 490,337. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BODEN, of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Safety-Pins; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

In the ordinary form of safety-pin, in which the wire is coiled to form a spring at that end of the pin which is opposite to the pin-point and its shield, there is great liability of the fabric working between or becoming entangled in the coils of the spring.

The object of the present invention is to provide a safety-pin in which this liability will be prevented.

To that end the invention consists in a safety-pin, the coiled-spring end of which is provided with a guard arranged and applied as hereinafter described.

Referring to the drawings, Figure 1 represents a safety-pin provided with a guard at its coiled-spring end. Fig. 2 is a transverse section, upon an enlarged scale, on the line x , Fig. 1. Fig. 3 represents the flat blank from which the guard is formed. Fig. 4 represents said blank after it has been cupped preparatory to being applied to the coiled end of the pin. Figs. 5, 6, 7, and 8 are corresponding views in which a slightly different form of blank and guard are represented. Figs. 9, 10, 11, and 12 are corresponding views showing a modified form of guard and a modified means for holding the guard in place, and Fig. 13 is an under view of Fig. 9.

The safety-pin A is composed as usual of two legs a b , with the intermediate portion c coiled to form a spring, the leg a being the free or pin portion, while to the other leg b is secured a shield B as usual. To the coiled-spring end of the pin is applied a guard d . In all cases this guard d is applied exteriorly, or outside of the coil, as shown in Figs. 1, 5, and 9, and so as to inclose or embrace the wires composing said coil, as shown in Figs. 2, 6, and 10. Fig. 3 represents a flat blank of suitable shape to form the guard shown in Fig. 1. This flat blank is first struck up into sub-

cupped blank is then placed over the coiled end of the spring and its free edges bent inward to inclose the wires of the coiled spring, as shown in Fig. 2. As will be seen, the guard d , when thus applied, not only connects the two wires of the coil, but bridges over the space between the pin-wire and the coiled portion, and thus prevents the fabric from working between or being caught between said two wires.

The form of blank shown in Figs. 7 and 8 is provided with projections d' , which said projections when the guard is secured in place will serve to more or less fill the interior of the coil, as shown in Fig. 5, thereby giving a somewhat different finish or appearance to the end of the pin. It will be observed that with both forms of guard shown in Figs. 1 and 5, respectively, the guard when secured in place upon the coiled end of the pin occupies substantially a complete half-circle, or, in other words, embraces substantially one-half of the coiled portion of the pin. By this arrangement the guard is held securely in the desired position upon the coil and is prevented from being accidentally displaced or changed in position, for the reason that any attempt to turn the guard in one direction will be resisted by the end of the guard abutting against the wires of the coil and consequently that portion of the guard—viz., one end thereof, which bars the entrance of the fabric between the wires of the coil—will always be held in the proper position to perform the required function.

In the modified form of guard shown in Figs. 9 to 13, inclusive, the guard is provided with a hole or perforation d^2 , through which the pin-wire or leg a is passed when the guard is applied to the coil. By this arrangement the guard is held in proper position and is prevented from being turned or moved around the coil by reason of the fact that said guard is thus threaded upon said pin-wire. With this construction and arrangement of guard, therefore, the guard may, if desired, be made shorter and so as to occupy less than a half-circle when in place upon the coiled end of the pin, as shown in Fig. 9.

It will be seen that the guard is in all cases applied exteriorly to the coil, and is bent

around the wires composing the coil, so as to bring the edges of the guard and the seam or space between them upon the inside of the coil, leaving the outside or exposed portion of the guard with a smooth unbroken surface. Such guard so applied, therefore, not only serves the primary purpose of bridging across the space between the two wires of the coil and thus effectively preventing the entrance of the fabric between said wires, but it also serves to make a neat, attractive and desirable finish to the coiled end of the pin.

What I claim as my invention, and desire to secure by Letters Patent, is—

15 1. A safety pin having a coiled portion to form a spring, and provided with the guard *d* applied exteriorly to the outer end of said coiled portion, and with its free edges bent inward to embrace the two wires composing

the double portion of said coil and bring said edges and the seam or space between them upon the inside of the coil, substantially as described.

2. A safety pin having a coiled portion to form a spring, and provided with the guard *d* applied exteriorly to the outer end of said coiled portion, and with its free edges bent inward to embrace the two wires composing the double portion of said coil for a distance of substantially a half circle, and bring said edges and the seam or space between them upon the inside of the coil, substantially as described.

GEORGE BODEN.

Witnesses:

WALTER PLACE,
A. A. STONE.