

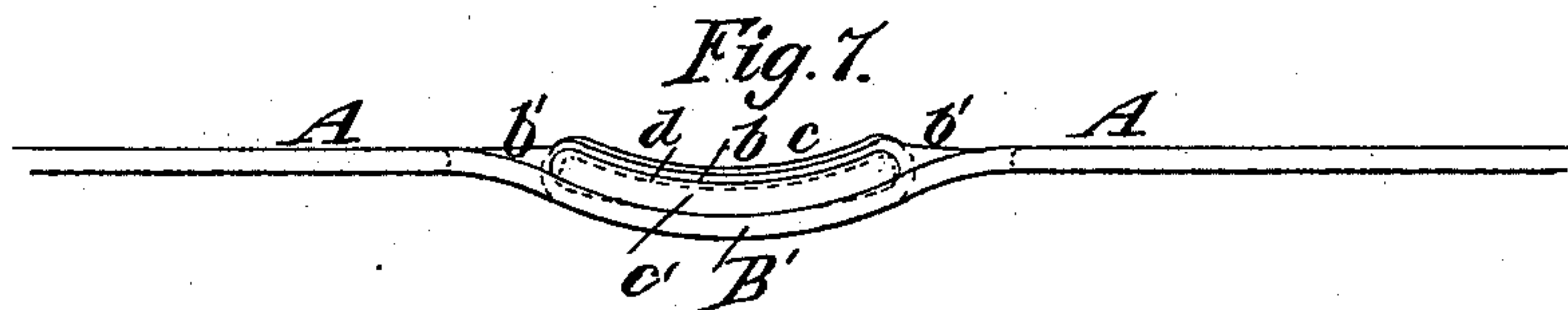
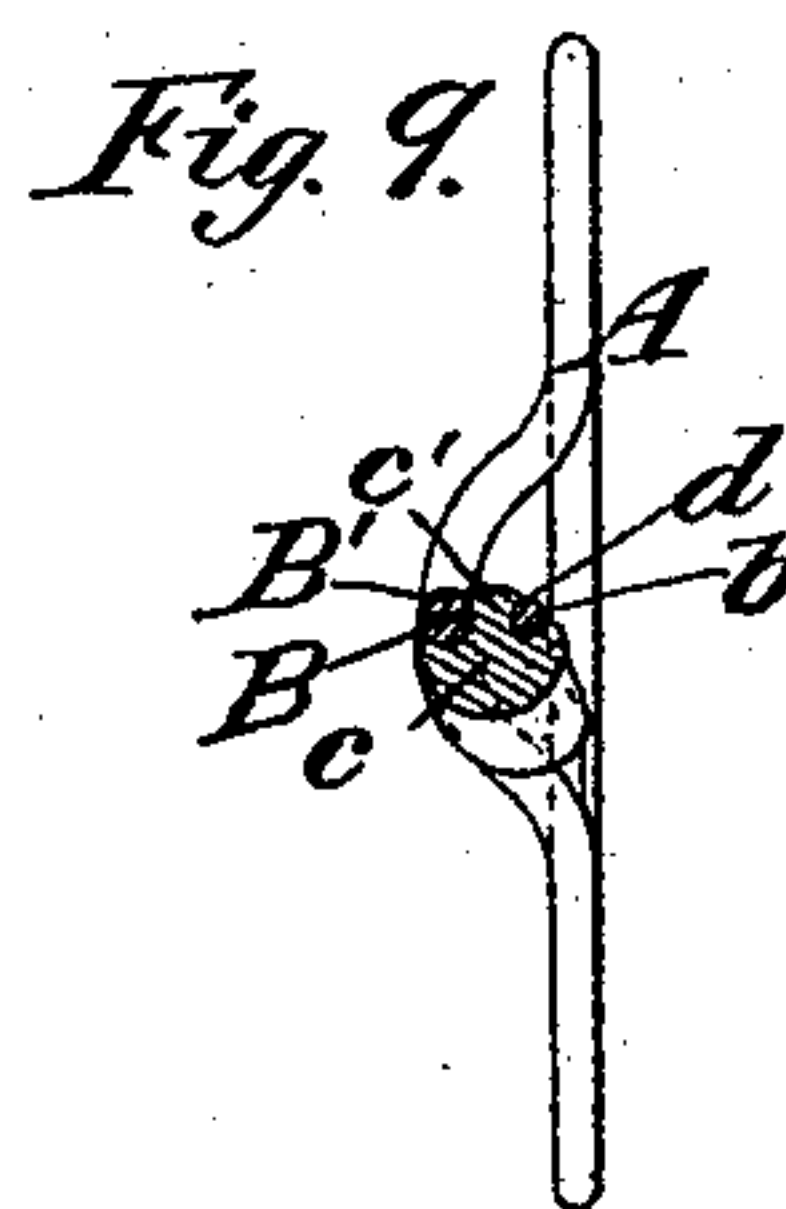
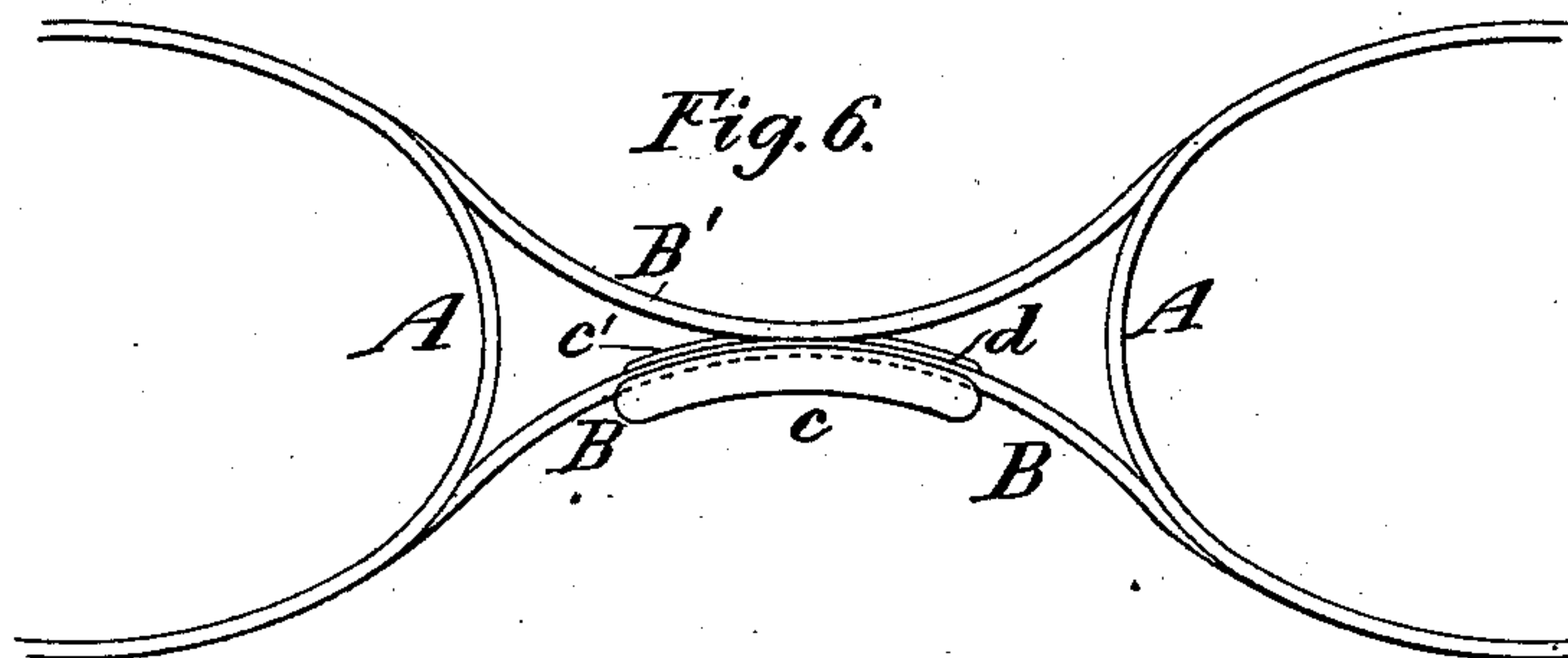
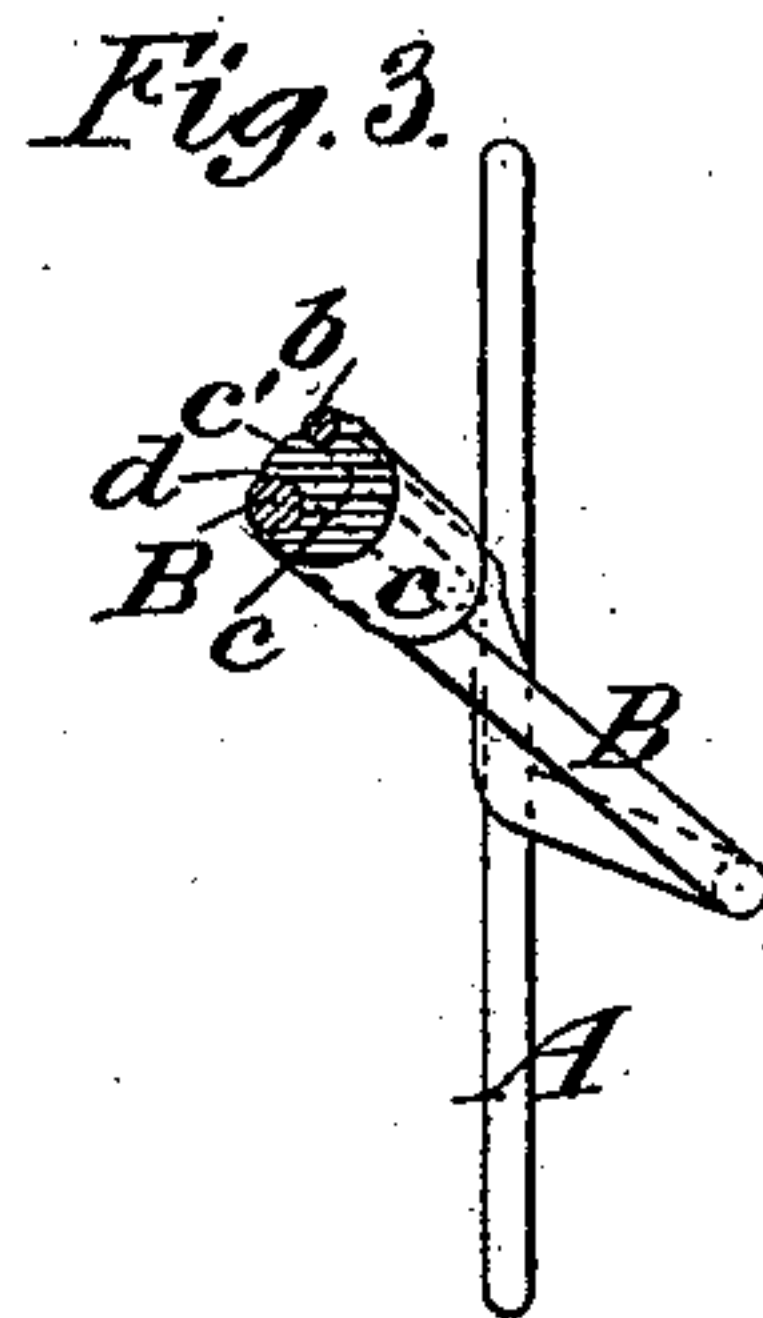
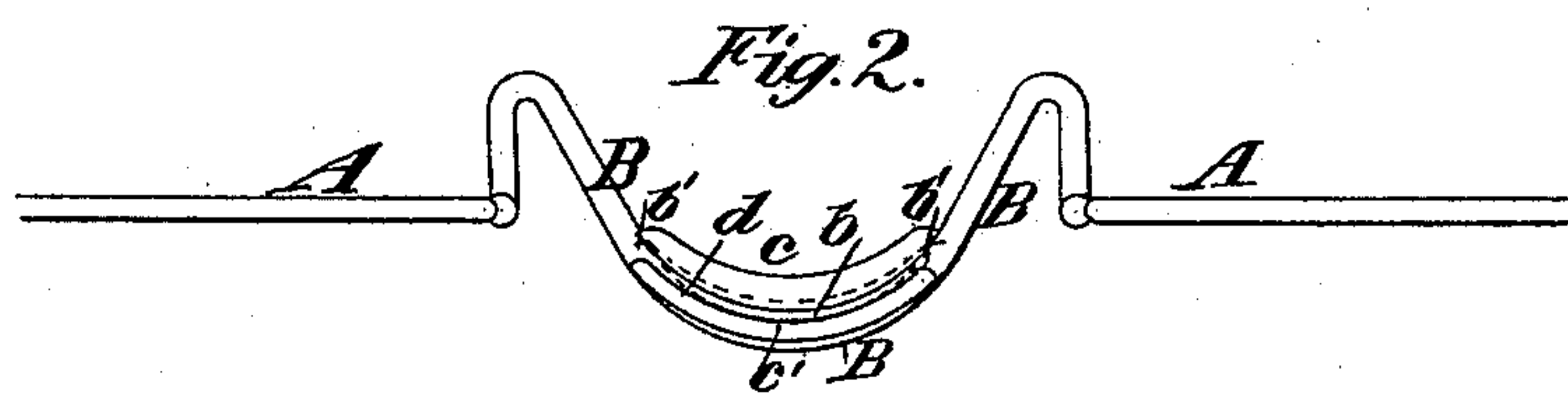
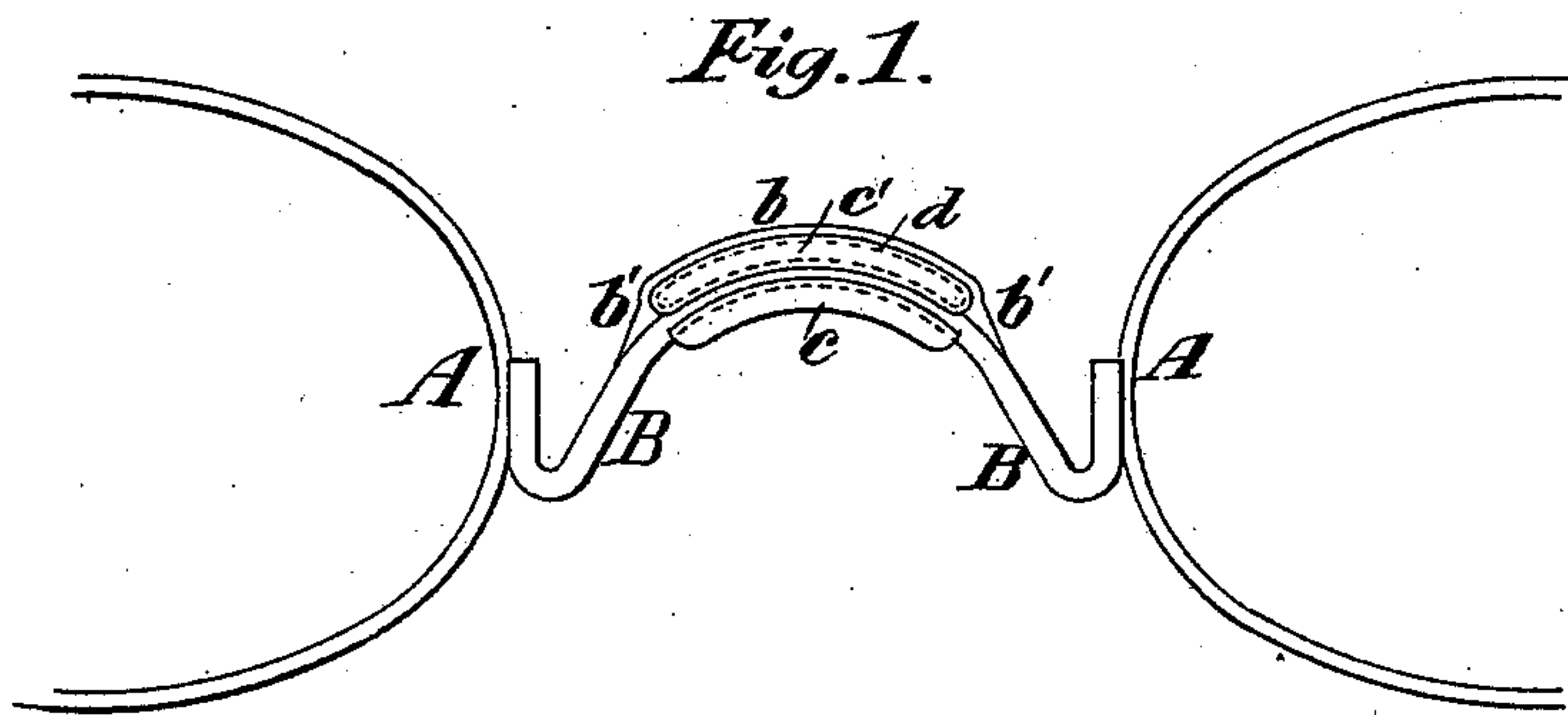
(No Model.)

G. W. WELLS.

CUSHION SECURING DEVICE FOR SPECTACLE BRIDGES.

No. 361,385.

Patented Apr. 19, 1887.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE W. WELLS, OF SOUTHBRIDGE, MASSACHUSETTS.

CUSHION-SECURING DEVICE FOR SPECTACLE-BRIDGES.

SPECIFICATION forming part of Letters Patent No. 361,385, dated April 19, 1887..

Application filed December 20, 1886. Serial No. 222,109. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WELLS, of Southbridge, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Spectacle-Bridges, of which the following is a specification.

My invention relates to spectacle-bridges which are provided with cushions or pads of cork, soft india-rubber, or other yielding or elastic material, to prevent abrasion of the skin of the nose and to hold the spectacles in place thereon. In such bridges it is desirable that the cork or other cushion shall be held within a suitable socket or slot, the cushion or pad being provided with a tongue which extends lengthwise of it, and is adapted for insertion into the socket or slot.

It has been proposed to construct the bridge so as to form a box or channel-like inclosure, open on the under side only, and in which the cushion or pad may be held in place by the inwardly-turned edges of the box or channel. It has also been proposed to split lengthwise the wire of which the bridge is made and by deflecting the portions thus produced form a slot or slit in the bridge.

The object of my invention is to provide a bridge which will be less cumbersome and heavy looking than the box-like bridge above referred to, and which will possess all the advantages of the split bridge without the liability of breaking the bridge at the point where the slit in the bridge ends.

In carrying out my invention I form the bridge in the usual way and of ordinary strength, and the piece of metal or wire which forms this bridge is not in any way impaired in strength by the construction of the socket or slot which receives the cushion. In making this socket or slot I take a bar or wire made separate from the bridge and rigidly secure its opposite ends to the bridge, so that between the bridge and bar is formed a socket or slot in which the cushion or pad is secured; hence it will be seen that the construction of the socket in the bridge does not impair the strength of the bridge, but actually increases its strength. The ends of the bar or piece, which is made separate from the bridge, are preferably deflected in the same direction before being secured to the bridge, and hence

it follows that the socket for the reception of the cushion or pad, which is formed between the bridge and the bar secured thereto, has its entire width formed within or between the deflected ends of said bar, and hence the socket is formed without any side deflection or bending of the bridge proper to produce the proper width of the socket.

The invention consists in novel combinations of parts, hereinabove briefly referred to, and hereinafter particularly described, and pointed out in the claims.

In the accompanying drawings I have represented only the bridge and adjacent portions of the eye-wires of spectacles upon a scale larger than actual size, in order to show more clearly my invention.

Figure 1 is a front view, and Fig. 2 a plan, of a bridge of simple form embodying my invention. Fig. 3 is a transverse section through the middle of the bridge; and Fig. 4 represents the piece of wire or the bar, which is made separate from the bridge and is secured at the ends to the bridge in order to form the socket. Fig. 5 is a transverse section of a cushion or pad which may be employed. Fig. 6 is a front view of an X-bridge embodying my invention. Fig. 7 is a plan thereof, and Fig. 8 a corresponding plan, save that the upper wire of the bridge and the cushion are removed; and Fig. 9 is a transverse section of the bridge shown in Fig. 6.

Similar letters of reference designate corresponding parts in all the figures.

A designates portions of the eye-wires, and B the bridge proper. In making this bridge I do not depart from the ordinary method of manufacture in so far as construction is concerned; but I make the bridge of a piece of wire of about the same size as that ordinarily used when no pad or cushion whatever is employed. The bridge here shown is, however, provided with a pad or cushion, *c*, which has upon it a tongue, *c'*, as shown in Fig. 5, and which is held in place upon the bridge by its tongue *c'* being inserted and clamped within the socket or slot *d*, provided upon the bridge. This socket is formed by the addition of a short bar or piece of wire, *b*, such as is shown in Fig. 4, to the bridge. This wire or piece is made separate from the bridge, and its two

ends, b' , are rigidly secured to the bridge proper by soldering or otherwise, so that between the bridge and the separate bar or piece b will be formed the socket d , extending substantially the whole length of the wire b . The opposite ends of the piece or bar b are deflected or offset slightly in the same direction, as best shown in Fig. 4, and thus it will be seen that when this piece b is secured to the bridge B the entire width of the slot or socket d will be between the offset ends of the separate piece or bar b , and the bridge proper, B, will not be deflected from its normal plane. By this separate piece or bar b , secured to the bridge, I form the slot or socket d to receive the cushion, not only without any weakening of the bridge, but the piece which is added to form the slot or socket actually strengthens the bridge; hence it will be seen that the bridge is much stronger than the one having a slot or socket for a cushion formed by splitting the wire of which the bridge is made, and then deflecting the portions at opposite sides of the split in order to form a slot or socket of necessary width. With such a construction the bridge is very apt to break at the termination of the split or slot, and thus necessitate the renewal of the entire bridge.

The cushion or pad c may be of cork, india-rubber, or other suitable soft and yielding material, and in order to secure it within the socket or slot d its tongue portion c' is first compressed so as to enter the slot, and the two sides or wires which form the slot are then slightly pressed upon the tongue portion c' between them. This will produce a spreading of the tongue portion c' above the wires forming the slot, as shown in Fig. 3, and the cushion or pad will thereby be securely held in place.

In the example of my invention shown in Figs. 6 to 9, inclusive, I have represented an X-bridge composed of a lower wire, B, and an upper wire, B', united at about the middle of their length. The lower wire, B, is provided with a socket or slot, d , in the manner above described—namely, by making the piece

or bar b separate from the bridge and offset slightly in the same direction at its ends b' , and then soldering or otherwise rigidly securing the offset ends b' to the bridge-wire B. In this way I provide the lower wire, B, of the bridge with a slot or socket of proper size to receive the pad or cushion, and the bridge, instead of being weakened by the construction of such slot or socket, is actually strengthened.

In making an "X-bridge," or a "K-bridge," as they are commonly called, and where the lower wire, B, is bent in two planes—that is to say, is curved upward and also outward—the socket or slot for the cushion could not be produced by sawing or splitting the lower wire, B. Such sawing or splitting of the wire B would necessarily have to be done before the wires B B' are soldered together, and in such soldering the slot or slit would be filled in part by the solder, and thus rendered useless for the purpose intended. The lower wire, B, could not be sawed or split after it is soldered to the upper wire, because the two wires are curved and the sawing would cut the bridge in two.

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

1. The combination, with a spectacle-bridge, of an outer bar made separate therefrom and rigidly secured at its ends to the bridge, to form between the bridge and bar a socket or slot, and a cushion or pad secured in said socket or slot, substantially as herein described.

2. The combination, with a spectacle-bridge, of a bar made separate from the bridge and having its opposite ends offset in the same direction and rigidly secured to the bridge, to form between the bridge and bar and between the offset ends of the bar a socket or slot, and a cushion or pad secured in said socket or slot, substantially as herein described.

GEORGE W. WELLS.

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