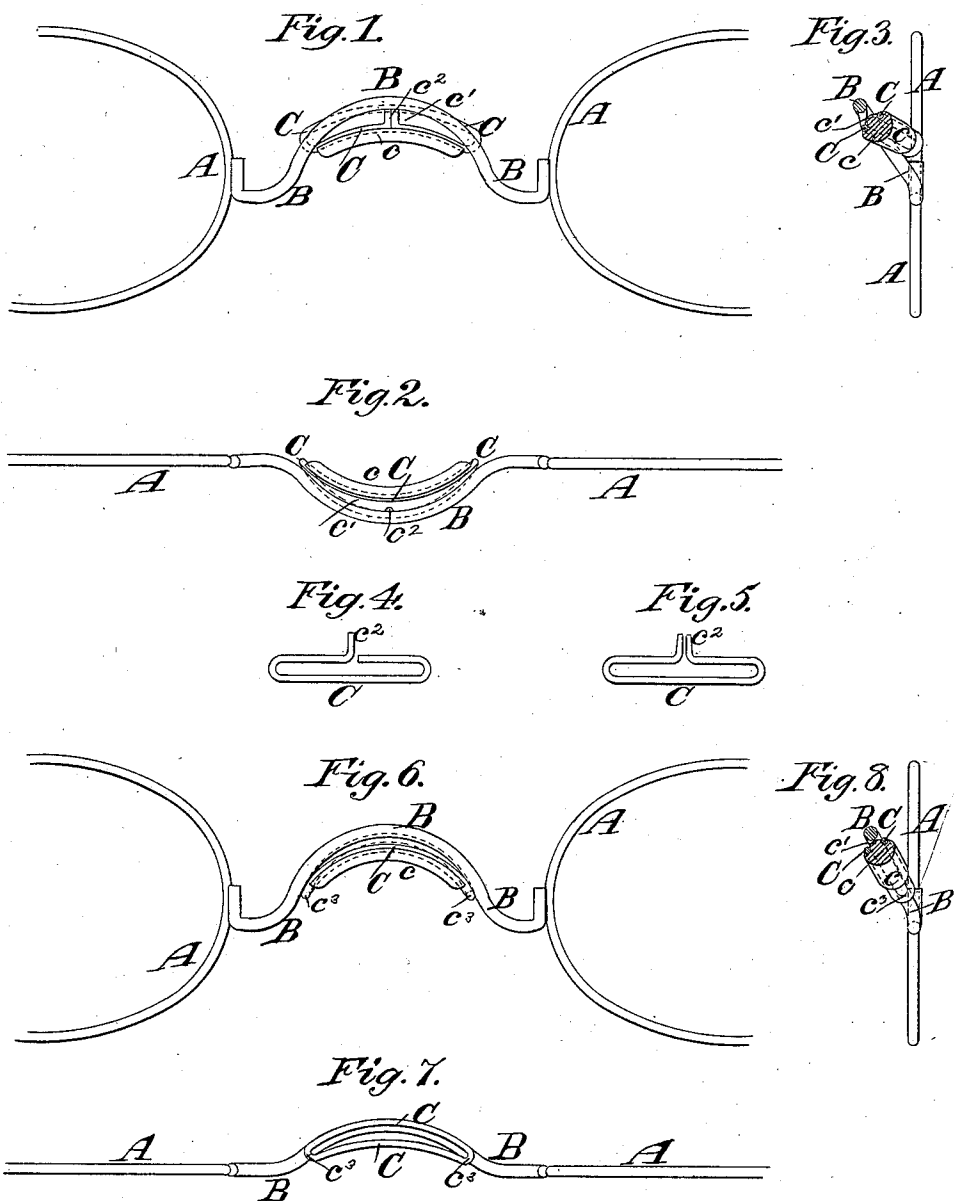


(No Model.)

J. M. DUPAUL.
SPECTACLE BRIDGE.

No. 362,613.

Patented May 10, 1887.



Witnesses.

Emil Hertner
O. Sundgren

Fig. 9.



Inventor.

Jos. M. Dupaul
by his Attys
Crown Hall

UNITED STATES PATENT OFFICE.

JOSEPH M. DUPAUL, OF SOUTHBRIDGE, MASSACHUSETTS, ASSIGNOR TO THE
AMERICAN OPTICAL COMPANY, OF SAME PLACE.

SPECTACLE-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 362,613, dated May 10, 1887.

Application filed December 20, 1886. Serial No. 222,108. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. DUPAUL, 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 severally with a cushion or pad of cork, soft india-rubber, or other analogous elastic or yielding material, so as to rest more easily and securely upon the nose.

In order to afford provision for receiving and holding the pad, spectacle-bridges have been made of special construction, having a heavy box-like transverse section in which the cushion or pad is received, and in other bridges a loop or slot has been constructed, one or both sides of which are formed by the bridge proper and in which the cushion or pad is retained.

The object of my invention is to provide a device, complete in itself, in which a cushion or pad may be retained and which is secured to the bridge.

The invention consists in the combination, with a spectacle-bridge, of a loop or socket for the reception of a cushion secured to the bridge and having both its side bars or members made separate from the bridge. This loop or socket may be most conveniently formed from a piece of wire bent into proper shape, and it may be secured at each end to the bridge; but preferably I secure the loop or socket at a single point to the bridge, so that the loop or socket may be bent to give it any curvature desired without affecting the bridge. The end or ends of the wire from which the loop or socket is formed may be bent transversely, so as to form at about the middle of the length of the loop or socket a projecting lug or ear, whereby the loop or socket is attached to the bridge.

In the accompanying drawings I have represented a bridge embodying my invention and the adjacent portions of the eye-wires upon a scale larger than actual size.

Figure 1 is a front or face view of a bridge embodying my invention, and in which the loop is secured at the middle of its length to the bridge proper. Fig. 2 is a plan of the bridge. Fig. 3 is a transverse section thereof; and Figs. 4 and 5 are two forms of loops, which are produced by bending the wire into proper

shape. Fig. 6 is a front or face view of a bridge embodying my invention, and in which the loop or socket is secured at both ends to the bridge proper. Fig. 7 is an inverted plan of the bridge shown in Fig. 6 without the cushion. Fig. 8 is a transverse section thereof, and Fig. 9 a detailed view of the loop alone before its attachment to the bridge.

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

In all the figures, A designates the eye-wires, and B the bridge proper. The bridge in itself need not differ from those ordinarily made of a simple piece of wire in spectacles which have no cushion or pad upon the bridge. The cushion or pad *c*, which may be of cork, soft india-rubber, or other yielding or elastic material, is held within a loop or socket, C, and in Figs. 4 and 5 I have represented two forms of loop or socket which may be employed. In both these forms the loop or socket C is formed of a simple piece of wire bent so as to form an oblong opening within it, and having the end portions of the wire at about the middle of the length of the loop, both the side bars or members of the loop being made separate from the bridge.

In Fig. 4 I have shown one end portion as bent outward transversely, at about the middle of the length of the loop, to form a lug or ear, *c'*, and in Fig. 5 this lug or ear at the middle of the length of the loop is produced by bending outward transversely both end portions of the wire. The loop C may be secured to the bridge proper, B, by solder or otherwise, the lug or ear *c'* being the part through which the loop is secured to the bridge. The cushion or pad *c* may be formed with a rib, *c'*, extending lengthwise of it, as shown in transverse section in Fig. 3, and this rib may be compressed so as to enter into the opening of the loop C, and the sides of the loop may then be closed upon it. The two side members or portions of the loop will then be embedded into the cushion or pad *c*, as is shown in Fig. 3, and the secure attachment of the cushion or pad to the bridge will thus be obtained.

It is advantageous to have the loop or socket C made complete in itself, entirely separate from the bridge proper, B, and to have said loop or socket secured to the bridge at

about the middle of its length only, because then the loop may be bent transversely, so as to give it any desired curvature to fit the nose, and this may be done without bending the bridge proper or altering the pupillary distance by changing the position of the eye-wires A.

In Figs. 6 to 9, inclusive, I have represented the cushion or pad *c* as held within a loop or socket, C, which is made entirely separate from the bridge and complete in itself, as before described, but which is secured to the bridge at its two end portions, *c'*. To make this loop, a single piece of wire may be bent to the form shown in Fig. 9, and by soldering the two ends of the loop to the bridge at the two points *c'* the two ends of the wire which are at one end of the loop will be secured so as to maintain the proper form of the loop.

In both examples of my invention the making of the bridge may be proceeded with and completed in the usual way, and the loop or socket C may afterward be attached thereto; but I deem the example shown in Figs. 1 to 5 preferable, because with their construction the loop may be bent as desired without bending the bridge proper. In both examples of the invention the addition of the loop or socket to the bridge tends to strengthen it rather than weaken it, and this is particularly true of the example of invention shown in Figs. 6 to 9.

I am aware of patent to Hubbell, No. 319,977, granted June 16, 1885, and do not include the construction therein shown in my invention. In that construction the nose-guard is made of a thin piece of sheet metal bent into proper curved form and secured at the ends to

the bridge. It is stated that the edges of such piece of metal may be rolled over a fine wire to strengthen them and make them smooth; but such fine wire would not certainly be of such size as to be used without a sheet-metal plate as a loop for a cushion; nor is any such use contemplated in the patent.

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

1. The combination, with a spectacle-bridge, of a loop or socket for the reception of a cushion secured to the bridge, and having both its side bars or members made separate from the bridge, substantially as herein described.

2. The combination, with a spectacle-bridge, of a loop or socket for the reception of a cushion made separate from the bridge and secured thereto at one point only in its length, substantially as herein described.

3. The combination, with a spectacle-bridge, of a loop or socket for the reception of a cushion made separate from the bridge, and having at about the middle of its length a projecting lug or ear, whereby it is secured to the bridge, substantially as herein described.

4. The combination, with a spectacle-bridge, of a loop for the reception of a cushion, formed of a piece of wire having its end or ends bent transversely at about the middle of the loop's length to form a lug or ear, whereby the loop is secured to the bridge, substantially as herein described.

JOSEPH M. DUPAUL.

Witnesses:

E. E. SABIN,
C. F. HILL.