

No. 744,317.

PATENTED NOV. 17, 1903.

W. H. ELY.
EYEGGLASS BRIDGE.
APPLICATION FILED JULY 1, 1903.

NO MODEL.

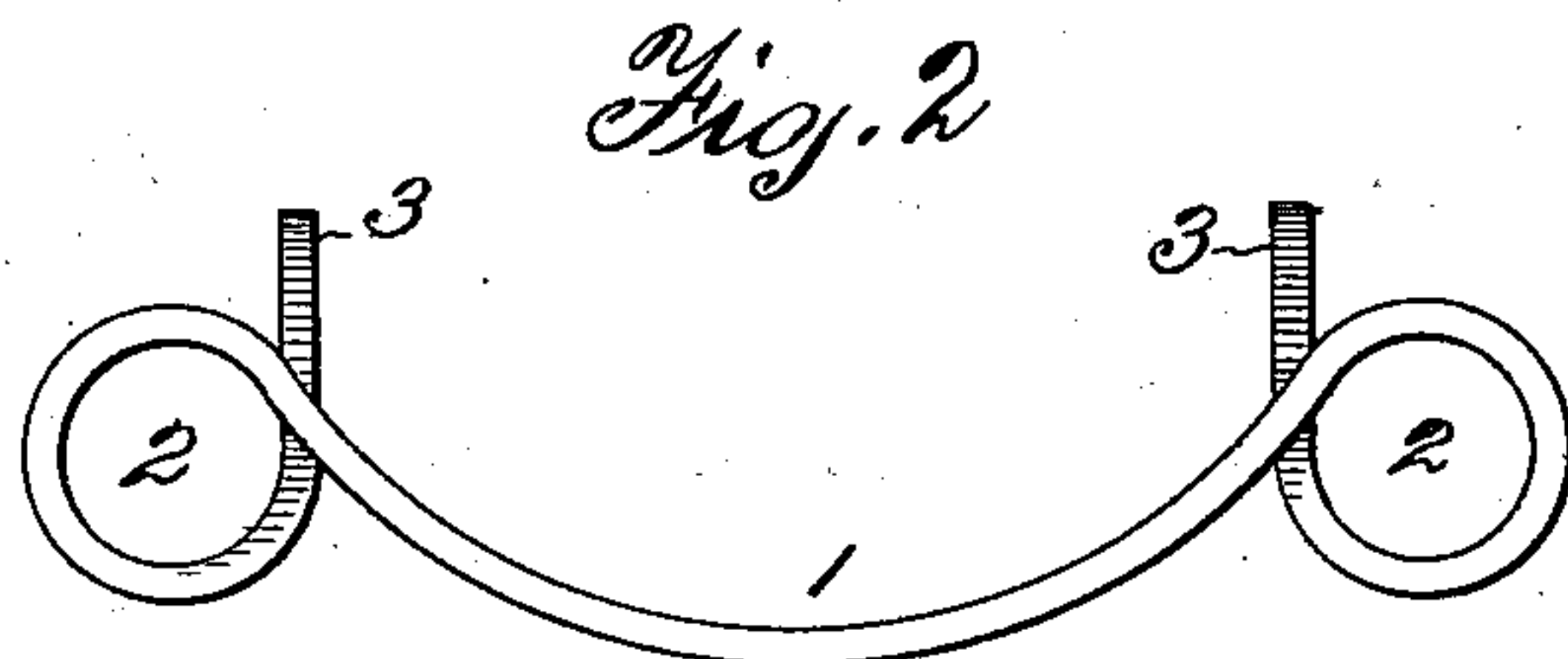
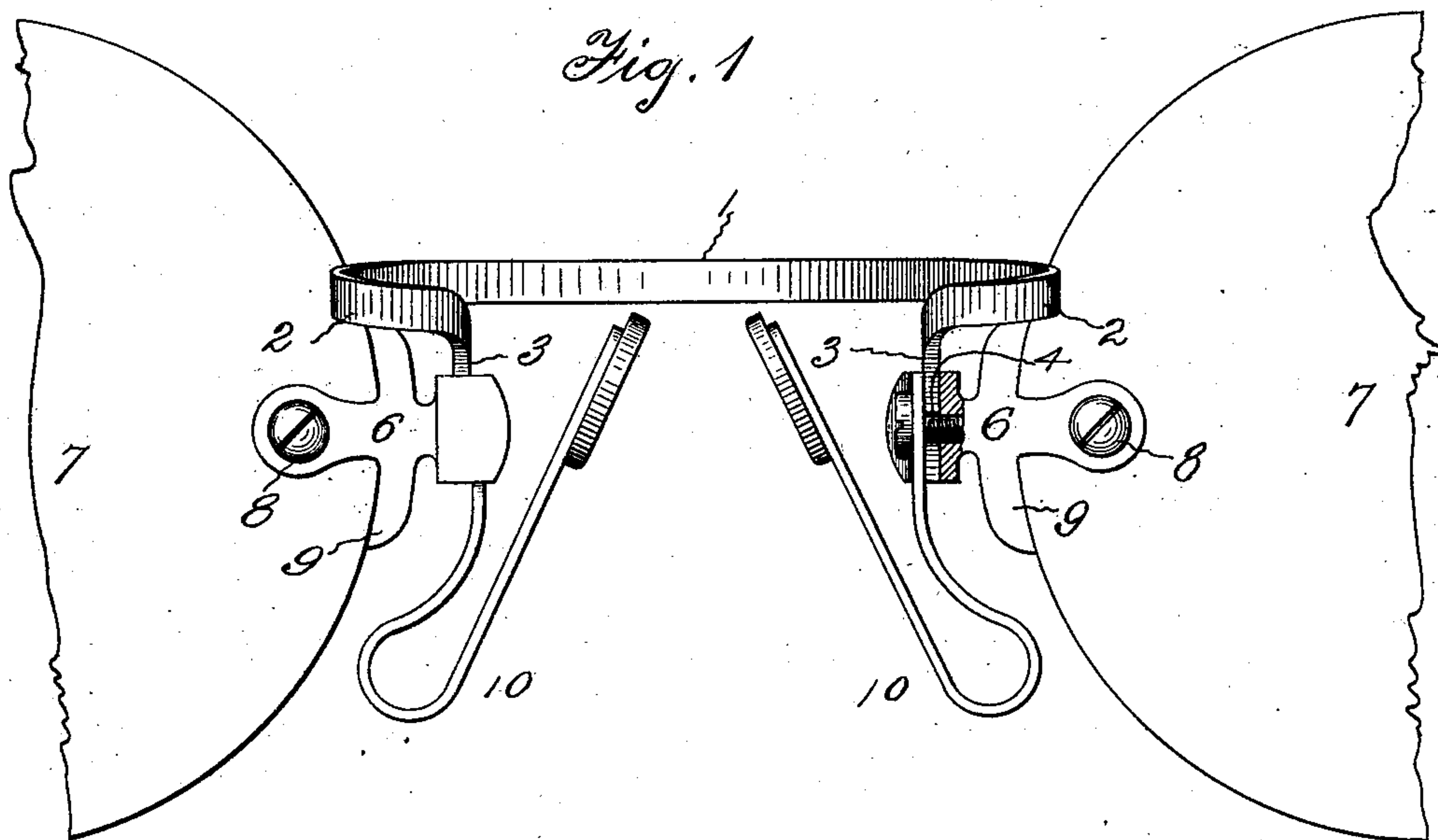
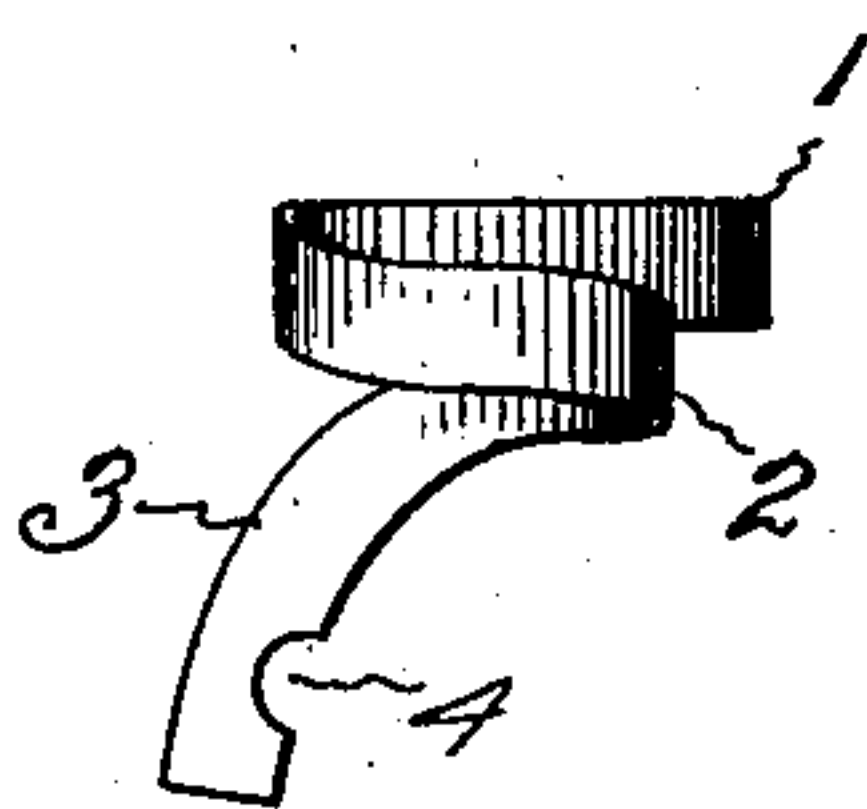


Fig. 3



Witnesses:
Echel M. Lowe
C. H. Goussard

Inventor,
William H. Ely, by
Harry R. Williams
att

UNITED STATES PATENT OFFICE.

WILLIAM H. ELY, OF MIDDLETOWN, CONNECTICUT.

EYEGLOSS-BRIDGE.

SPECIFICATION forming part of Letters Patent No. 744,317, dated November 17, 1903.

Application filed July 1, 1903. Serial No. 163,869. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. ELY, a citizen of the United States, residing at Middletown, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Eyeglass-Bridges, of which the following is a specification.

This invention relates to an eyeglass-bridge that has a flat spring-arch with spring-loops at the ends of the arch.

The object of the invention is to provide a bridge of flat spring metal having an arch that will spring substantially horizontally when in use, with spring loops at the end of the arch that are coiled in substantially the same plane as the spring of the arch, so that the bridge will have strength and much flexibility and will present a light and attractive front appearance, the ends of the loops being carried below and back of the ends of the arch and loops and provided with notches in their edges which adapt them to be attached to the studs in common use in such manner that the arch and loops will be thrown forward of the lenses held by the studs in a plane practically at right angles with the plane of the lenses.

This bridge has a forwardly-springing arch of flat spring metal, loops that are coiled forwardly at the end of the arch in substantially the same plane that the bridge springs, and loop ends that are curved edgewise downwardly and rearwardly below and in a plane at right angles to the plane of the spring of the arch.

Figure 1 of the accompanying drawings shows, on greatly-enlarged scale, a bridge that embodies the invention attached to an ordinary pair of studs. Fig. 2 shows a plan of the same bridge, and Fig. 3 shows an edge view of the bridge.

This bridge is formed to shape from a single piece of flat narrow spring-metal ribbon.

The ends of the arch 1 are coiled around forwardly, so as to form loops 2, that lie in front of the ends of the arch in practically the same plane that the arch springs. The ends 3 of the loops are bent so that they curve edgewise rearwardly and downwardly beneath the loops and the ends of the arch. In the edge near the bottom of each loop end a notch 4 is cut. The notched loop ends are secured

by screws 5 in the mortises in the studs 6, that are attached to the lenses 7 by the stud-screws 8 and frame-arms 9. The inner ends of the guard-fingers 10 are also secured in the mortises in the studs by the screws 5 in the usual way.

The flat spring-arch of this bridge springs forwardly when in use, so as to appear but slightly curved when looked at from directly in front. This arch opens with a sidewise motion instead of an up-and-down motion, so that the lenses are always held centrally and in line with the eyes of the wearer, and because of this the guards are very widely separated when the glasses are put to use. The loops in front of the ends of the arch provide a desirable flexibility and allow the bridge to be used with various sizes and shapes of noses. These loops are bent in such manner that they become more tightly closed as the bridge is opened and the tension increases on the arch—that is, the loops are closed and not opened when the bridge is sprung for locating the glasses with which it is used; and as the loops are coiled in substantially the same plane as the spring of the arch, a little distance off they are hardly observable and distinguishable from the arch. The loop ends must stand with their edges toward the front in order to be secured to the common studs and to present but little surface when viewed from the front and they must be carried downwardly toward the rear, so that the arch and loops will project forwardly away from the nose of the wearer. This requires the ends of the loops to be bent edgewise.

It is desirable to have the bridge formed in a single piece and of flat stock. Wide stock cannot be readily bent edgewise, so that narrow stock must be used, and as narrow stock does not have sufficient width to allow being perforated for the attaching-screws notches are made in the edges of the loop ends for the passage of the screws.

This bridge can be adjusted for a large number of different sizes and shapes of noses. It is inconspicuous and attractive in appearance. It is strong and durable and is very yielding. The method of attachment is firm because the screw acts on one edge only of the loop end and cramps the end in the mortise, and the ends of the bridge are not as liable

to be broken off when notched as when perforated, for considerable metal is left opposite the notches. The bridge is easily bent to form and no special operation is required
5 to enlarge the ends to provide means for attachment and it can be attached to the common studs of commerce.

I claim as my invention—

10 An eyeglass-bridge formed of flat spring metal and having a forwardly-springing arch with loops coiled in substantially the same

plane as the spring of the arch in front of the ends, and with loop ends that curve rearwardly and downwardly from the inner sides of the loops under the ends of the arch and 15 the loops and standing in a plane at substantially right angles to the plane of the arch, substantially as specified.

WILLIAM H. ELY.

Witnesses:

HARRY R. WILLIAMS,
ETHEL M. LOWE.