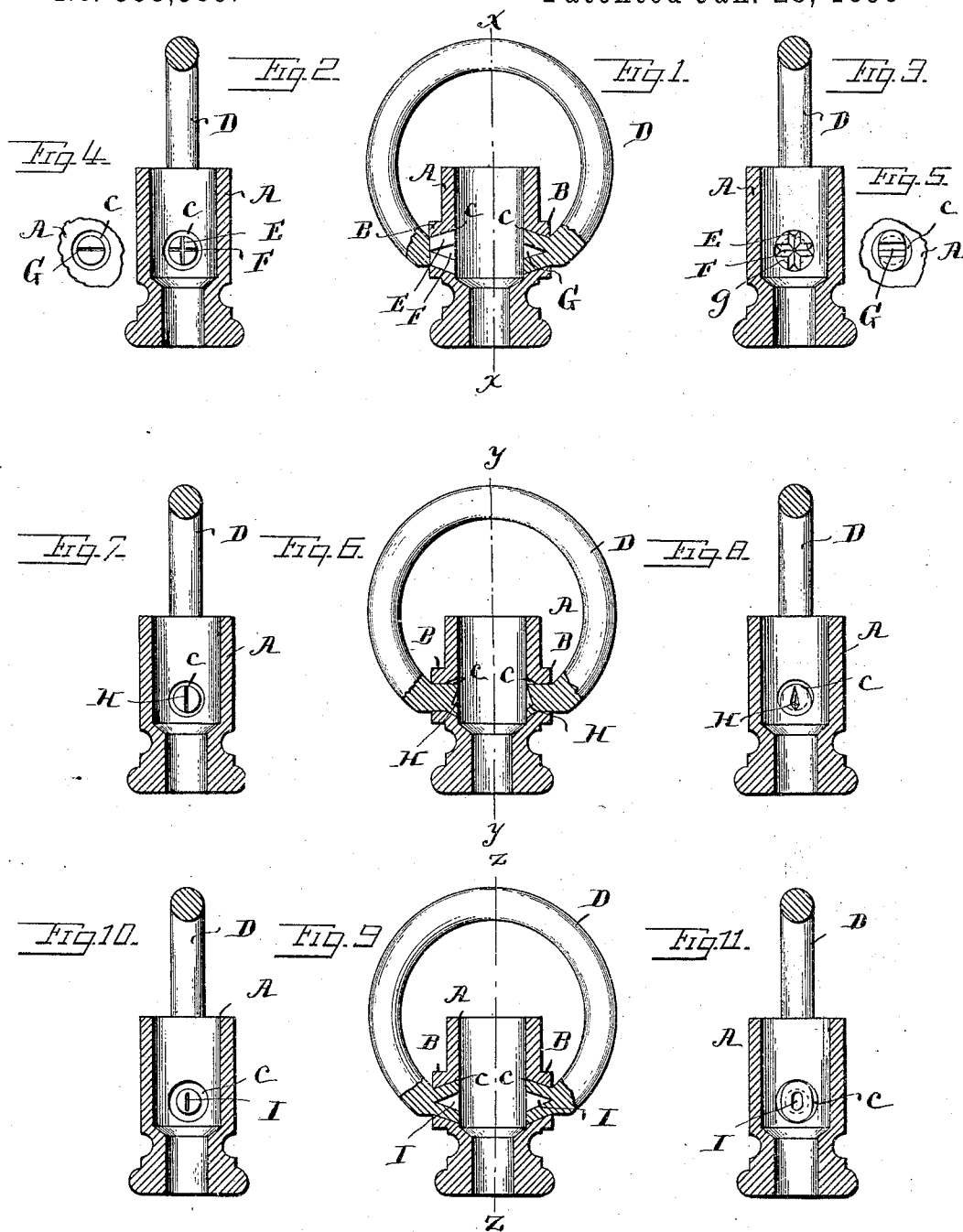


(No Model.)

F. MINK.
WATCH BOW FASTENER.

No. 553,589.

Patented Jan. 28, 1896.



Witnesses:

Jesse B. Heller,
H. L. Motherwell.

Inventor.

Fritz Mink
By *[Signature]*
Attorney.

UNITED STATES PATENT OFFICE.

FRITZ MINK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE KEY-STONE WATCH CASE COMPANY, OF SAME PLACE.

WATCH-BOW FASTENER.

SPECIFICATION forming part of Letters Patent No. 553,589, dated January 28, 1896.

Application filed June 4, 1894. Serial No. 513,348. (No model.)

To all whom it may concern:

Be it known that I, FRITZ MINK, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Watch-Bow Fasteners, of which the following is a specification.

My invention relates to watch-bow fasteners; and it consists of certain improvements which are fully set forth in the following specification and shown in the accompanying drawings.

It is the object of my invention to enable the ends of a watchcase-bow to be conveniently and economically fastened to the pendant and to avoid the employment of auxiliary locking devices, such as collars, pins, or nuts.

In carrying out my invention I provide the ends of the bow in the faces of its extremities with cuts, slits, or depressions, and after the ends have been inserted in apertures of the pendant I enlarge these cuts, slits, or depressions by means of a tool or die from the interior of the pendant so as to expand the metal laterally to a width greater than the diameter of the aperture through which the ends are inserted. By this means the ends of the bow are fastened, while they are permitted to have the usual swinging movement in the apertures.

Referring now to the drawings for greater particularity, Figure 1 is a vertical sectional view of a watchcase pendant and bow embodying my invention, with the opposite ends of the bow illustrating slightly-different constructions. Fig. 2 is a vertical sectional view of the same on the line *xx* of Fig. 1, looking to the left, showing the end of the bow before it has been enlarged or expanded. Fig. 3 is a similar view showing the end of the bow expanded. Fig. 4 is a view of a portion of the interior of the pendant, looking to the right in Fig. 1, showing the end of the bow before it has been enlarged or expanded. Fig. 5 is a similar view showing the bow after it has been expanded. Fig. 6 is a vertical sectional view of a watchcase pendant and bow, illustrating a modification of my invention. Figs. 7 and 8 are each vertical sectional views of the same on the line *yy* of Fig. 6, respectively, show-

ing the end of the bow before and after it has been enlarged or expanded. Fig. 9 is a vertical sectional view of a watchcase pendant and bow, illustrating another modification of the invention; and Figs. 10 and 11 are vertical sectional views of the same on the line *zz* of Fig. 9, respectively, showing the end of the bow before and after it has been enlarged or expanded.

A is the watchcase-pendant, which may be of any suitable construction, and is provided in its opposite sides with the apertures B. These apertures may be, and preferably are, enlarged upon the interior, as shown at C.

D is the watchcase-bow, the ends of which are free to pass freely through the apertures B in the pendant. The ends of the bow are provided upon their extremities with slits, recesses or depressions adapted to receive a tool and permit the metal of the ends to be expanded laterally upon the inside to a diameter or lateral width greater than the outside diameter of the apertures B. By this enlargement or expansion of the ends of the bow they are fastened against passage through the apertures.

I do not limit myself to any special form of slits, recesses or depressions.

In Figs. 1, 2, and 3 I have shown the ends provided with two crossed slits EF; in Figs. 1, 4, and 5 with a single slit G; in Figs. 6, 7, and 8 with a radial cut H, and in Figs. 9, 10, and 11 with a central cut or recess I.

To expand the ends of the bow I insert the point or end of a tool through the interior of the pendant into the slits, cuts or recesses, and by twisting or turning the tool open the slits, and thus expand the metal laterally so as to enlarge the end of the bow beyond the diameter of the aperture B.

In Figs. 2, 4, 7, and 10 the ends of the bow are shown before they have been expanded or enlarged by the tool or instrument.

It is not material to my invention whether the slits, cuts, or recesses are made in the extremities of the bow before or after the ends have been inserted in the apertures.

If desired, the enlargements C about the apertures B on the inside of the pendant may be omitted. In some classes of cases, as in

pendant-setting and stem-winding cases, I prefer to employ these enlargements, as they form seats and permit the extremities of the bow to be expanded without projecting materially into the tubular bore of the pendant, and thus interfering with the stem-setting devices.

If desired, the extremities of the bow may be filed or cut down to a small extent to remove roughness and diminish the size of the expanded portions. The advantages possessed by this fastening device are that no auxiliary or separate locking devices are necessary, and that as the ends of the bow are of the same or substantially the same diameter as the bow comparatively large bearings are formed by the laterally-expanded portions of the metal, so that the fastening is durable and strong.

I do not limit myself to the minor details of construction shown.

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

The combination of a watch case pendant provided with apertures in its sides of conical form flaring inward a bow having its ends of a diameter substantially equal to the full diameter of the body of the bow, and provided upon their extremities with transverse slits or cuts, and having the metal on each side of the slits or cuts bent out laterally so as to expand the extremities of the ends of the bow on the inside of the apertures to substantially fill the said conical apertures and having bearings against their walls.

In testimony of which invention I have hereunto set my hand.

FRITZ MINK.

Witnesses:

ERNEST HOWARD HUNTER,
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