

(No Model.)

W. F. BINGHAM.
WATCH BOW FASTENER.

No. 493,814.

Patented Mar. 21, 1893.

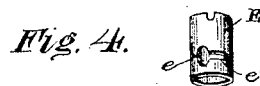
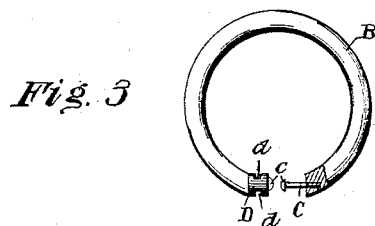
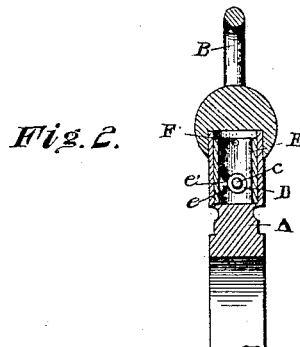
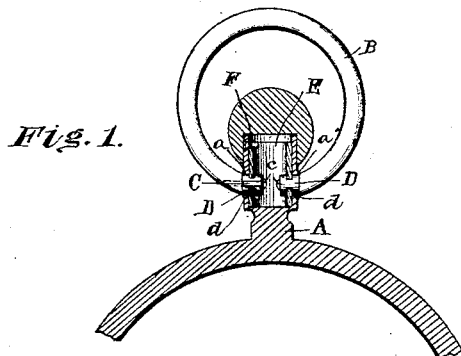


Fig. 5.

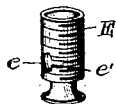


Fig. 6.

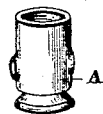


Fig. 7.



Fig. 9.

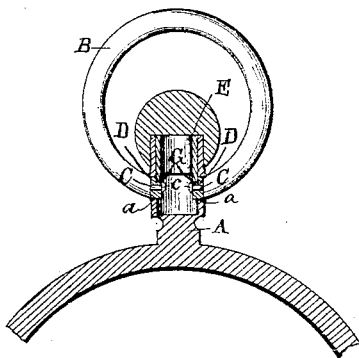
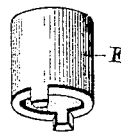


Fig. 8.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM F. BINGHAM, OF MONTICELLO, IOWA.

WATCH-BOW FASTENER.

SPECIFICATION forming part of Letters Patent No. 493,814, dated March 21, 1893.

Application filed October 1, 1892. Serial No. 447,495. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BINGHAM, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented a new and useful Fastening for Watch-Bows, of which the following is a specification.

My invention relates to improvements in fastening devices for bows of watch cases, the object in view being to provide a fastening device whereby the wear incident to the repeated turning of the bow in its bearings will be sustained by a material better suited to withstand such wear than the precious metal composing the bow.

A further object of my invention is to provide a fastening device whereby less of the precious metal is necessary to form a bow of the same dimensions, the appearance remaining the same.

A further object of my invention is to provide a fastening device by means of which the bow may be readily and quickly connected to the pendant of a watch case, and from which it cannot be detached by wear.

Further objects of my invention will appear in the following description, in which the advantages thereof will also be pointed out, and the novel features of the invention will be specifically set forth in the appended claims.

In the drawings, Figure 1 is a section through a watch pendant provided with my improved fastening device. Fig. 2 is a similar view at right angles to Fig. 1. Fig. 3 is a detail view of the bow, with one of the swivels in position. Fig. 4 is a similar view of the locking sleeve or shell. Figs. 5 and 6 show, respectively, the inner and outer shells of a slightly modified form of pendant, to which a bow may be attached in accordance with my invention. Fig. 7 shows a swivel, Fig. 8 a sleeve or shell, and Fig. 9 a sectional view of said swivel and sleeve in combination with the bow and pendant, involving another slightly modified form of my invention.

Referring by letter to the drawings, in which similar letters denote corresponding parts in all the figures thereof: A designates an ordinary pendant, comprising a shell provided with bearings, *a a*, in opposite sides, and B designates a bow, also of the ordinary construction, which, however, is of such a length

that its ends just reach the outer surface of the shell of the pendant. The ends of the bow are drilled or bored to form sockets in which are screwed or forced the pins or spindles, C C, having heads, *c c*, of any desired shape.

D D represent swivels or collars, mounted loosely upon the pins or spindles, between the heads of the latter and the ends of the bow, respectively, said swivels or collars being transversely slotted or grooved, as shown at *d d*, in diametrically opposite sides. These swivels or collars are preferably of equal diameter with the bow, and fit snugly at their adjacent ends against the ends of the bow, being held thus by the heads of the pins or spindles bearing against their opposite ends.

E represents the sleeve or inner shell, which is fitted snugly within the outer shell of the pendant, and is provided, at diametrically opposite points with openings, *e*, which may be aligned with the bearings or openings in the sides of the outer shell. Communicating with said openings in the inner shell, are horizontal slots, *e' e'*, extending in opposite directions, respectively, from the openings, and tapered slightly in width toward their closed or remote ends.

The pins or spindles having been fixed in the ends of the bow and the swivels or collars mounted thereupon, the latter are inserted in the registering openings in the outer and inner shells of the pendant and are caused to extend inward until the transverse grooves in the oppositesides of the swivels are aligned with the sides or edges of the slots in the inner or revoluble shell, when the latter is turned sufficiently to cause the reduced portions of the swivels or collars to be engaged by the slots in the inner shell, after which the latter is locked in position by means of a suitable set-screw, F, of the ordinary or any preferred form.

In the modified form of pendant shown in Figs. 5 and 6, the outer shell is of a size to fit upon the inner shell, which is stationary, the outer shell being provided with a female screw and the inner shell with a male screw to engage. The outer shell is provided with the usual bearings for the bow, and the inner shell is provided with the above-described openings and communicating horizontal slots, said openings in the outer and inner shells

being so arranged that as the former is screwed upon the latter the openings become aligned just before the final partial twist which is required to bring the outer shell to its place.

5 The swivels or collars upon the ends of the bow are then inserted, as above, their grooves aligned with the slots in the inner shell, and the final twist is given to the outer shell, thus forcing it to place simultaneously by causing the edges of the slots in the inner shell to en-
10 gage the grooves in the swivels or collars.

In the modified form of my invention which is shown in Figs. 7 to 9, inclusive, the only difference of construction consists in that the
15 swivels or collars, (which are mounted and arranged precisely as above described) are provided with dovetailed or wedge-shaped notches, G, in their inner ends, instead of the diametrically opposite grooves, and the inner
20 shell, instead of having openings and communicating slots, is provided at its lower edge with depending studs, wedge-shaped in section, to engage the notches in the swivels or
25 collars when the latter have been introduced sufficiently into the openings in the opposite sides of the pendant.

From the above description it will be evident that one feature is common to all the forms of my invention which have been illustrated and described, namely, the loosely
30 mounted swivel or collar, which, being of approximately the same diameter as the bow, fills the opening in the side of the pendant and is, in turn, concealed by the end of the
35 bow which fits snugly against its outer end and terminates at the surface of the pendant. Furthermore, it will be noted that all of the wear is sustained by the swivel or collar and the pin or spindle upon which it is mounted,
40 whereby, when necessary, these parts may be replaced without altering the appearance of the bow and at a small expense. Furthermore, by making the pin or spindle and the swivel or collar of steel or other material ca-
45 pable of withstanding great wear, the life of the fastening device may be extended. Furthermore, attention is directed to the fact that no portion of the bow, proper, namely that portion which is usually formed of gold,
50 silver, or other precious metal, is concealed within the pendant, and therefore this portion of the watch may be made more cheaply than heretofore without altering the appearance. Furthermore, I desire it to be under-
55 stood that I have illustrated only a few of the many modified forms of pendants to which my improvement may be applied, said forms being shown to indicate the general idea of

the application of the invention, and while I prefer the form illustrated in Figs. 1 to 4, in-
60 clusive, of the drawings, I do not limit myself to any particular details of construction, as various changes may be made from the construction shown, without departing from the spirit of the invention.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-
65 ent of the United States, is—

1. The combination with a hollow pendant having opposite smooth side openings, of a
70 bow provided with terminal pins or spindles, swivels or collars rotatably mounted upon such pins or spindles and fitted in said side openings in the pendant, a sleeve or shell ro-
75 tatably fitted in the pendant, and means to lock the swivels or collars to said sleeve or shell, whereby rotation of the former is pre-
vented, substantially as set forth.

2. The combination with a hollow pendant, having opposite smooth side openings, of a
80 bow provided with terminal pins or spindles, swivels or collars rotatably mounted upon such pins or spindles, loosely fitted in said side openings and provided, flush with the
85 bore of the pendant, with opposite transverse kerfs or grooves, and a sleeve or shell rotatably fitted in the bore of the pendant and provided with opposite transverse slots
90 terminating at corresponding extremities in enlargements or openings, substantially as set forth.

3. The combination with a hollow pendant having side openings, of a bow provided with
95 terminal rotatable swivels, fitted in said side openings and having transverse kerfs or grooves, a sleeve or shell rotatably fitted in the bore of the pendant and provided with
100 slots to engage the kerfs or grooves in the swivels, and means to lock the sleeve or shell from rotation, substantially as set forth.

4. A fastening for bows and pendants of watch-cases, consisting of removable pins or
105 spindles screwed or forced into bores in the ends of the bow, swivels upon said pins or spindles, and an inner shell fitting within the outer shell of the pendant and provided
with means to engage said swivels when in-
serted in the openings in the pendant, sub-
stantially as specified.

In testimony that I claim the foregoing as
110 my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. BINGHAM.

Witnesses:

BURTON M. GAYLORD,
GEORGE G. SCHAEFFER.