

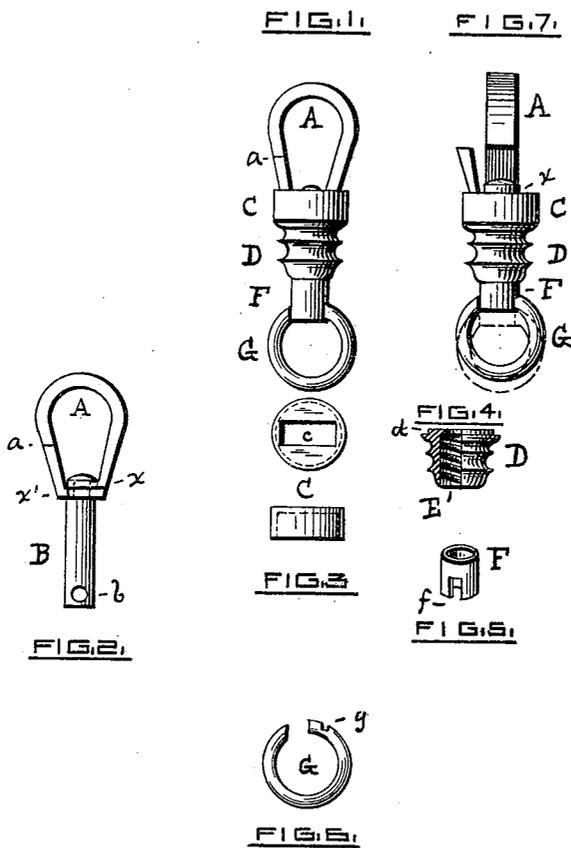
(Model.)

J. HANCOCK & L. RICHARDS.

SWIVEL FOR WATCH CHAINS.

No. 266,620.

Patented Oct. 31, 1882.



WITNESSES,

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# UNITED STATES PATENT OFFICE.

JOHN HANCOCK AND LEVI RICHARDS, OF PROVIDENCE, RHODE ISLAND.

## SWIVEL FOR WATCH-CHAINS.

SPECIFICATION forming part of Letters Patent No. 266,620, dated October 31, 1882.

Application filed August 16, 1882. (Model.)

*To all whom it may concern:*

Be it known that we, JOHN HANCOCK and LEVI RICHARDS, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Swivels for Watch-Chains; and we declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

10 Figure 1 is a front elevation of our invention; Figs. 2, 3, 4, 5, and 6 are detail views. Fig. 7 is a side elevation of our improved swivel, showing the bow withdrawn from the locking-plate during revolution.

15 Our invention relates to that class of swivels which are used to fasten the ring of a watch to a watch-chain; and it consists of a revolving bow loosely pivoted upon a stem which extends through the swivel-head, and which is 20 locked in position by being drawn into a socket by means of a spring inclosed in the swivel-head, which spring also secures in place the ring of the swivel, as hereinafter more fully specified.

25 The bow A is made of a straight piece of stock, perforated and bent at its two ends  $x$  and  $x'$ , as shown in Fig. 2, and loosely riveted through both ends to the stem B, thus allowing its free rotation upon said stem. The bow 30 is cut transversely on one side thereof, as indicated at  $a$  in Figs. 1 and 2, leaving the major part of the bow free to rotate in either direction, while the minor part remains stationary, as shown in Fig. 7. At the opposite end 35 of the stem B is a transverse bore,  $b$ , extending from side to side.

The swivel-head which heretofore has been commonly constructed in one piece, consists of three parts in addition to the stem, which 40 extends through them. The top piece, C, is in the form of a cylindrical cap, of which a top view and side elevation are separately shown in Fig. 3. It has a rectangular slot,  $c$ , which serves to lock the base  $x$  of the bow A when 45 said bow has been drawn down into said slot by the spring, as hereinafter described. The center piece, D, is shown in Fig. 4 partly in elevation and partly in vertical section. At its upper or larger end it has an internal shoulder,  $d$ , to furnish a bearing for the spiral spring 50 E, which partially appears in Fig. 4. The

third or bottom part is a cylindrical tube or ferrule, F, the upper or inner end of which enters within the bottom of the central aperture of the center piece, D, and furnishes a 55 bearing upon that side for the spring E. At its outer end the ferrule F has upon one side a slot,  $f$ .

The ring G (shown in Fig. 6) has near one end thereof a square nick or notch,  $g$ , to lock 60 the same in position.

The parts of our invention are put together as follows: The stem B is passed through the central apertures of the pieces C D F, and the spring E and the bore  $b$  is then brought to the 65 opening  $f$  of the ferrule F. The ring G is inserted in the bore  $b$ , and its nick  $g$  engages with and locks on the inner edge of the slot  $f$ . The opposite end of the ring G is left free to enter the end link of the watch-chain, after which it 70 is bent into place to lie flush with the exterior surface of the ferrule F, as shown in Fig. 1. As the contiguous ends of the several pieces C, D, and F are plane surfaces, they fit snugly together when held in contact and present the 75 appearance of a single piece. This is due to the action of the spring E, which, having a fixed bearing on the shoulder  $d$  of the center D, crowds outwardly the ferrule F, which it 80 lies against, and thus by virtue of the connection of said ferrule with the ring G pulls down the stem B, which in turn draws the bottom of the bow A into the locking-slot  $e$  of the cap C, whereby all the parts of the swivel are securely 85 held in position.

To operate the swivel-bow A, grasp the swivel-head firmly with the thumb and forefinger of one hand and the bow with the thumb and forefinger of the other hand. Draw them 90 slightly apart, thus compressing the spring E and withdrawing the inner end of the bow from the locking-slot  $e$ . Then by a quarter-revolution turn the bow into the position shown in Fig. 7. When the ring of the watch 95 has been suspended within the bow turn the bow back a quarter of a revolution, and as soon as the end  $x$  of the bow has been swung back into its former place the spring pulls it down into the locking-slot, where it is securely 100 held from all displacement.

It will be seen that by this construction we avoid entirely the use of solder in the manu-

facture of our improved swivel. The use of solder, which has hitherto always been necessary, compels the repeated heating of the stock and impairs the strength of the material. It would also destroy the temper of a spring previously inclosed in the swivel. To place the spring requires a separate operation, which, with the several solderings, involves considerable labor and skill; but by our process of manufacture we preserve the original strength of the stock, as well as the temper of the spring, and all the parts are assembled together with little labor and without special skill, and are united securely in a compact structure by the force of the spring.

The lateral rotation of the bow gives free and ample space for the insertion of the watch-ring and prevents the disfigurement of the latter, which is sometimes occasioned in crowding it past a spring-bow of ordinary construction.

It is obviously within our invention if the spring should be placed in any exterior position to perform the same function, or if the rotating bow should be itself sprung into a locking plate or socket.

We claim as a novel and useful invention and desire to secure by Letters Patent—

1. In a swivel, the nicked ring G, in combination with the slotted ferrule F, stem B, and spring E, operating to hold said ring in position, substantially as specified.

2. The improved swivel herein described, consisting of the bow A, stem B, locking-cap C, center D, spring E, ferrule F, and ring G, constructed and combined substantially as shown, and for the purpose specified.

JOHN HANCOCK.

LEVI RICHARDS.

Witnesses:

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IDA P. FOSTER.