C. WILLS.

Watch-Chain Swivel.

No. 164,119. Patented June 8, 1875.

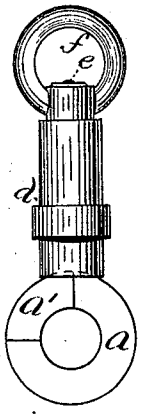

Fig. 1

Fig. 2

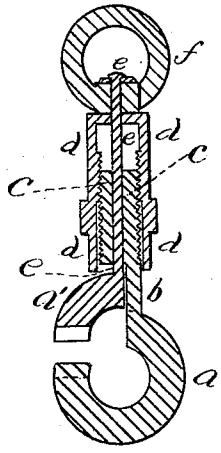

Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES WILLS, OF ATTLEBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN WATCH-CHAIN SWIVELS.

Specification forming part of Letters Patent No. **164,119**, dated June 8, 1875; application filed October 19, 1874.

To all whom it may concern:

Be it known that I, CHARLES WILLS, of Attleborough, in the county of Bristol and State of Massachusetts, have invented a new and valuable Improvement in Swivels, of which the following, when taken in connection with the accompanying drawings, is a full, clear, and exact specification.

This invention is intended, mainly, to be used in attaching watches to watch chains or guards; but it may be applied to any other use or uses to which it may be found to be adapted. In this swivel there is no hinge, joint, or spring. There is no "milling" to be done, and consequently no milling-machine is needed. The device is simple, very cheap, and easy to manufacture, and the opening in the swivel is in the head, which is conceded to be the most convenient place.

The nature of my invention in detail is fully described below.

In the accompanying illustration, Figure 1 is a front view of a swivel embodying my invention. Fig. 2 is a side view of the same, and Fig. 3 is a vertical section.

Similar letters of reference indicate corresponding parts.

a is the head or ring, and is made in two pieces or sections, *a* and *a'*. Extending upward from the part *a* of the head is a post or arm, *b*, which connects the part *a* with a screw, *c*, which fits into the cylinder or case *d*. Projecting upward from the part *a'* of the head is a rod, *e*. This rod *e* passes through the screw *c*, and attaches to the ring *f*.

It will readily be seen that if the case *d*, which extends from the head *a* to the ring *f*, occupying the entire length of space, is rotated upon the screw *c*, the said case *d* crowds the ring *f* upward, and the rod *e*, being set into said ring, draws the smaller part *a'* upward with it. Thus a space (see Fig. 3) is left between the two parts *a a'* of the head, into which may be inserted the bow of the watch.

The space may be closed by rotating the case *d* in the opposite direction.

It will be noticed that this invention has no complication, is cheap to manufacture, and requires no pin or spring, as the case *d* acts directly upon the ring *f*.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the head-sections *a a'*, case *d*, and ring *f* with the arm *b*, screw *c*, and rod *e*, substantially as described, and for the purpose set forth.

CHARLES WILLS.

Witnesses:

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