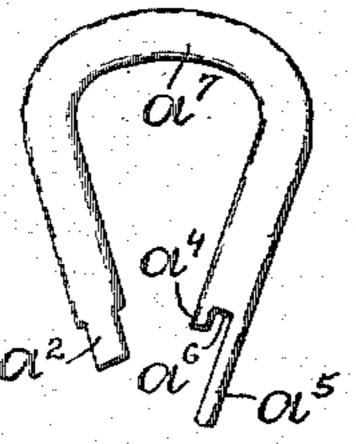
No. 640,556.

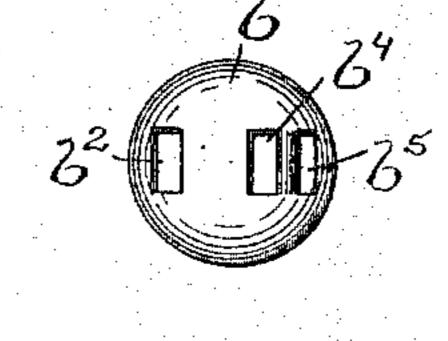
Patented Jan. 2, 1900.

## T. GIGUERE. CHAIN SWIVEL.

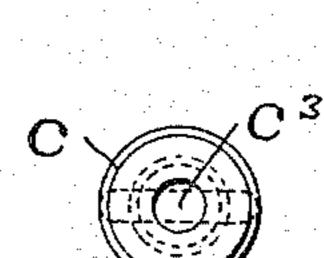
Application filed July 8, 1899.)

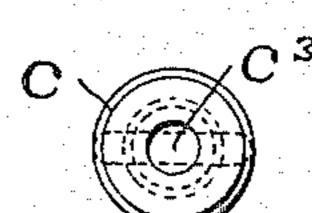
(No Model.)

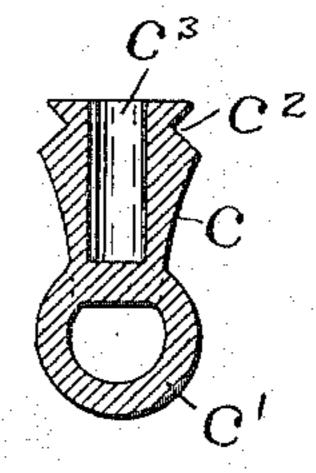


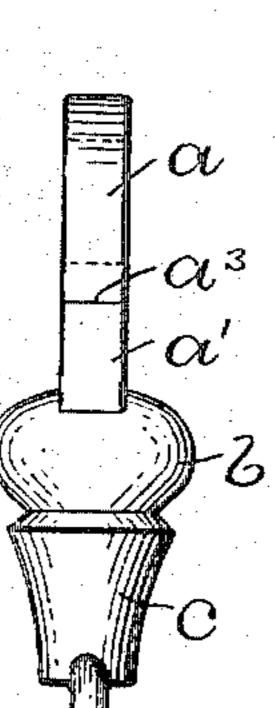


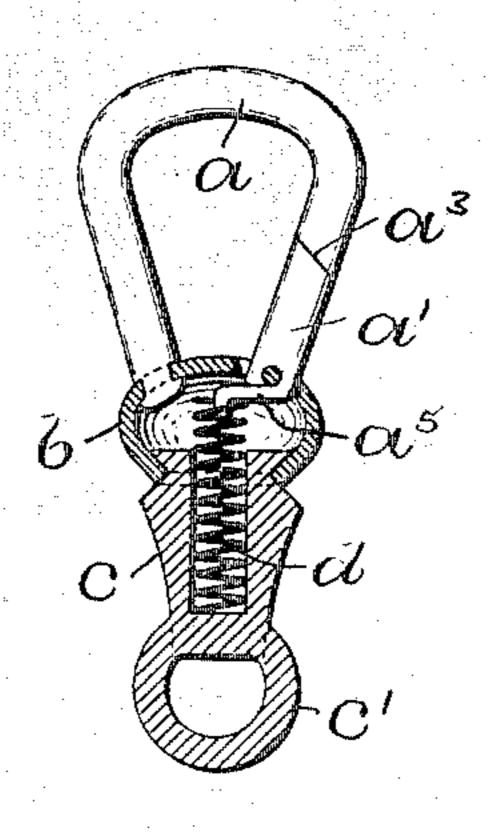












Chas. 16. Lulher Jr B. M. Simms

## UNITED STATES PATENT OFFICE.

THOMAS GIGUERE, OF ATTLEBOROUGH, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO FILIASE DYON, OF NORTH ATTLEBOROUGH, MASSACHUSETTS.

## CHAIN-SWIVEL.

SPECIFICATION forming part of Letters Patent No. 640,556, dated January 2, 1900.

Application filed July 8, 1899. Serial No. 723, 136. (No model.)

To all whom it may concern:

Be it known that I, Thomas Giguere, of Attleborough, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Chain-Swivels; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of swivels used on watch-chains to secure the chain to the watch or similar article; and it consists in the peculiar and novel construction by which the loop and the latch are secured to the shank of the swivel, as will be more fully set forth hereinafter.

Chain-swivels are so extensively used that any improvement by which their manufacture is facilitated is of importance to the art. As heretofore constructed the ring secured to the end of the chain has usually been rotatably connected with the stem. Such a connection is of small diameter, soon wears, and then forms a loosely-connected swivel.

One object of this invention is to form a more substantial rotatable connection between the loop and the stem of the swivel; and another object of this invention is to facilitate the manufacture of the chain-swivel.

Figure 1 is a side view of the loop-blank adapted to be secured to the rotatable cap. Fig. 2 is a top view of the cap perforated to receive the ends of the loop. Fig. 3 is a sectional view of the cap. Fig. 4 is a side view of the loop, showing the same secured to the cap and the latch separated by a cut. Fig. 5 is an end view, and Fig. 6 a transverse sectional view, of the shank of the swivel. Fig. 7 is an edge view, and Fig. 8 a vertical sectional view, of the completed chain-swivel.

Similar marks of reference indicate corresponding parts in the several figures.

In the drawings, a indicates the loop and a the latch portion of the loop. The loopblank a is formed of a metal bar. One end of the fixed part of the loop-blank is provided with the dowel a by contracting the end to form shoulders. The other end of the loopblank a, which, when separated by the diag-

onal cut  $a^3$ , forms the latch, is shaped to form the short projection  $a^4$ , the long arm  $a^5$ , and the seat  $a^6$ . The cap b is formed of sheet metal, preferably stock-plate, in which the outer surface is plated with precious metal, 55 a round disk being formed by suitable dies into a dome-shaped cap perforated with the holes  $b^2$ ,  $b^4$ , and  $b^5$ . Into these holes the dowel  $a^2$ , the projection  $a^4$ , and the arm  $a^5$  are inserted. The dowel  $a^2$  is upset or riveted to secure the 60 loop, and the arm  $a^5$  is bent under the part of the cap between the holes  $b^4$  and  $b^5$  to form a pivotal connection with the cap b. The end of the arm  $b^5$  is now bent sharply at a right angle, and the cut  $a^3$  is made to separate the 65 latch a' from the loop.

The shank c is provided with the ring c' at one end, the V-shaped groove  $c^2$  surrounding the other end and with the hole  $c^3$  in the center of the shank. The spiral spring d is 70 placed into the hole  $c^3$ . The cap  $\bar{b}$ , with the loop a, is now placed on the end of the shank, with the bent end of the arm  $a^5$  in the upper end of the spiral spring d. The cap b is now pressed into the V-shaped groove  $c^2$  and se- 75 cured to the shank c, so that it may be turned on the shank. By this construction the loop a is firmly secured to the cap, and the latch a' is pivotally secured and held in the locked position by the spiral spring d. No solder 80 is required, and as no part is therefore exposed to heat all parts may be finished and polished separately before the same are secured together, thereby producing a better and stronger swivel at less cost.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a chain-swivel, the combination with the shank provided with a ring at one end 90 and a V-shaped groove surrounding the other end, of a cap rotatably secured in the V-shaped groove of the shank, and the loop and latch secured to the cap by extending the ends through perforations in the cap, as described. 95

2. In a chain-swivel, the combination with the shank c, the ring c', the V-shaped groove  $c^2$  and the hole  $c^3$  in the shank, of the sheetmetal cap b, holes in the cap, the loop a, and the latch a' secured to the cap b by extend- 100

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ing the ends through the holes in the cap and extending the metal of the ends over the inner

surface of the cap, as described.

3. In a chain-swivel, the combination with the shank c, the hole  $c^3$ , the ring c', the annular groove  $c^2$  and the hole  $c^3$  in the shank, of the cap b rotatably secured in the V-shaped groove of the shank, the holes  $b^2$ ,  $b^4$  and  $b^5$  in the cap b, the loop a secured in the hole  $b^2$  to of the cap, the latch a', the projection  $a^4$  and

the arm  $a^5$  on the latch, and the spiral spring d acting on the bent end of the arm  $a^5$  of the latch, as described.

In witness whereof I have hereunto set my

hand.

## THOMAS GIGUERE.

Witnesses:

J. A. MILLER, Jr.,

B. M. SIMMS.