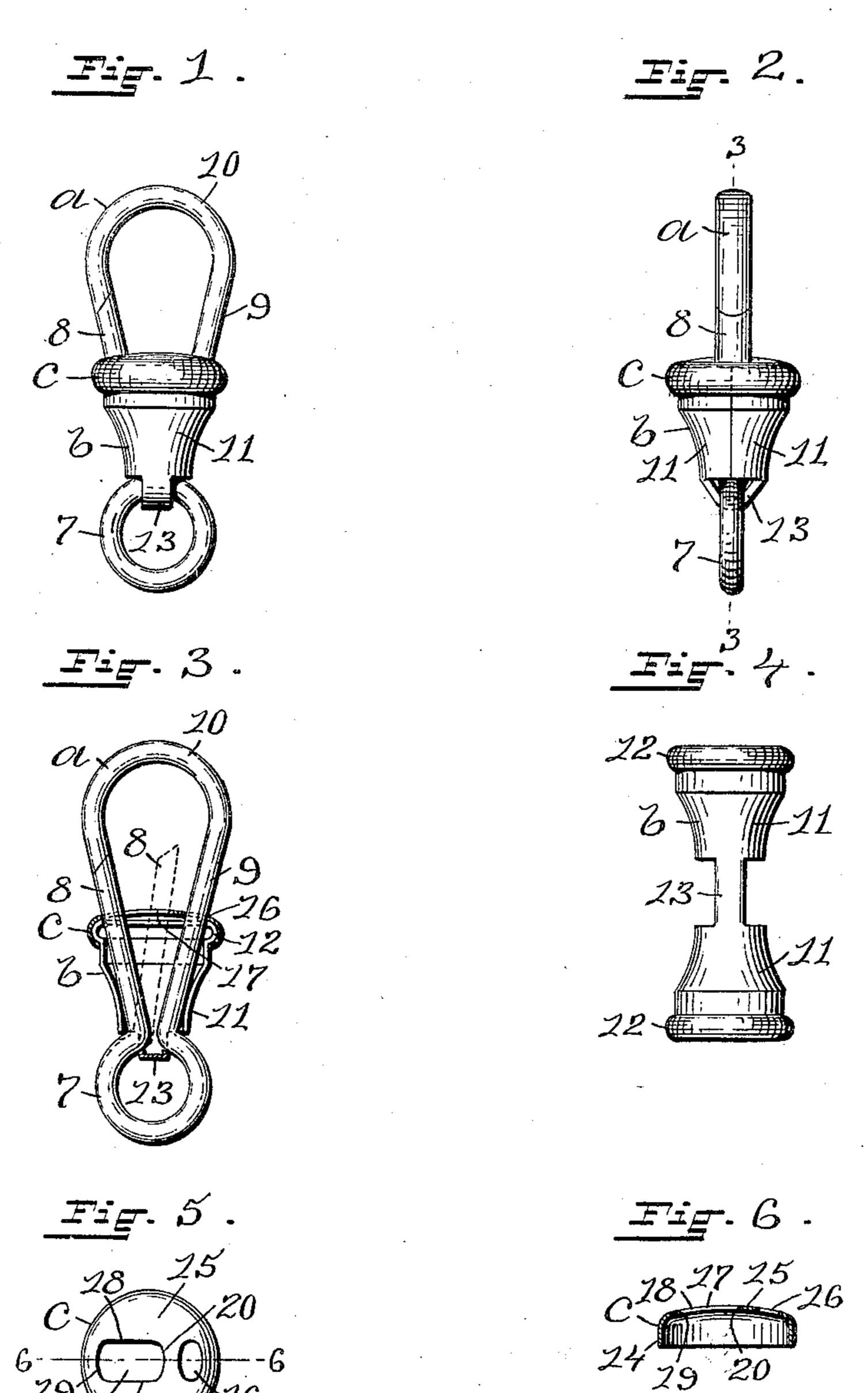
## F. E. FORSELL. WATCH CHAIN HOOK. APPLICATION FILED APR. 15, 1908.

917,039.

Patented Apr. 6, 1909.



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## IED STATES PATENT OFFICE.

FRANS EDWARD FORSELL, OF ATTLEBORO, MASSACHUSETTS, ASSIGNOR TO ATTLEBORO CHAIN COMPANY, OF ATTLEBORO, MASSACHUSETTS.

## WATCH-CHAIN HOOK.

No. 917,039.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed April 15, 1908. Serial No. 427,249.

To all whom it may concern:

Be it known that I, Frans Edward For-SELL, a citizen of the United States, residing at Attleboro, in the county of Bristol and 5 State of Massachusetts, have invented a new and useful Improvement in Watch-Chain Hooks, of which the following is a specification.

This invention has reference to an im-10 provement in snap hooks and more particularly to an improvement in spring wire watch chain hooks.

Spring wire snap hooks for watch chains as usually heretofore constructed were un-15 couth in appearance and weak in construction. The tongue is liable to be bent sidewise or in beyond the limit of its resiliency.

The object of my invention is to improve the construction of a spring wire snap hook 20 for watch chains, whereby the hook is given the conventional appearance of a watch chain swivel hook and is strengthened, the inward and outward movements of the spring tongue limited and the whole con-25 structed without solder, thereby retaining the temper, color and the polish of the metal.

My invention consists in the peculiar and novel construction of a spring wire snap hook for watch chains or similar chains, said 30 spring wire snap hook having details of construction, as will be more fully set forth here-

inafter and claimed.

Figure 1 is a side view of my improved spring wire snap hook, showing the spring 35 tongue in its normal closed position. Fig. 2 is an edge view of the hook, the line of juncture of the sleeve being clearly shown to show the structure of the sleeve. Fig. 3 is a sectional view taken on line 3 3 of Fig. 2, 40 showing the means for securing the cap to the sleeve and the spring tongue at the limit of its inward movement in broken lines. Fig. 4 is an outside view of the sleeve blank before bending the same to form the sleeve. 45 Fig. 5 is a top view of the cap, showing the hole for the shank of the hook and the opening for the spring tongue, and Fig. 6 is a sectional view of the cap taken on line 6 6 of Fig. 5.

In the drawings, a indicates the spring hook, b the sleeve and c the cap of my improved spring wire snap hook for watch

chains.

The spring wire hook a is in the form of a 55 loop contracted near one end to form a ring 7 and shaped to form the spring tongue 8 and the opposite side curved correspondingly from the ring 7 to form the shank 9 and then rounded over to form the hook 10, the ends of the tongue and hook abutting at an angle, 60

as shown in Figs. 1 and 3.

The halves of the sleeve b and connecting strap are first stamped from sheet metal in one piece, then shaped in suitable dies to form the finished semi-circular halves 11—11 65 having the beadings 12—12 on their outer ends and connected together by the central strap 13 at the inner ends, as shown in Fig. 4.

The cap c has the annular lip 14 and the rounded top 15 in which is a hole 16 for the 79 shank 9 of the hook a and the opening 17 for the spring tongue 8 of the hook a. The sides 18 18 of the opening 17 prevent side movement of the tongue 8 and the ends 19 and 20 of the opening 17 act as stops to limit the out- 75 ward and inward movements of the tongue.

The finished sleeve blank is bent centrally on the strap 13, the spring hook a is manipulated into position between the halves 11 11 of the sleeve, the halves of the sleeve brought 80 together with the strap 13 passing through the ring 7 of the spring wire hook, the cap cplaced in position with the shank 9 extending through the hole 16 in the cap, and the tongue 8 extending through the opening 17 85 in the cap, and the cap c secured to the sleeve b by rolling the lip 14 on the cap under the beadings 12 12 on the sleeve b, as shown in Figs. 2 and 3. The sleeve b is now permanently secured to the spring wire hook 90 a without solder, the tongue 8 is guided and limited in its outward and inward movement and the whole has the general appearance of a more expensively constructed watch chain swivel hook and with practi- 95 cally the same utility.

It is evident that the design or configuration of the sleeve b could be varied within wide limits without materially affecting the spirit of my invention.

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

Patent;—

1. In a spring wire snap hook, a spring wire hook, a sleeve split longitudinally and 105 surrounding the wire hook, a cap on the sleeve adapted to secure the members of the sleeve together, means in the cap for holding the shank of the wire hook, means for guiding the spring tongue of the hook on the 110 sides and means for limiting the outward

and inward movement of the tongue.

2. In a spring wire snap hook, a spring wire hook having a spring tongue and a 5 shank, a sleeve constructed of sheet metal shaped to form the sleeve in halves which when brought together surround the spring wire hook, a cap adapted to secure the halves of the sleeve together, means in the 10 cap for holding the shank of the hook, means for guiding the spring tongue of the hook on the sides, and means for limiting the outward and inward movement of the tongue.

3. In a spring wire snap hook, a spring 15 wire hook having a ring, a shank, a hookshaped end, and a spring tongue, a strap, a sleeve constructed of sheet metal shaped to form the sleeve in halves connected by the strap which when brought together sur-20 round the spring hook with the strap passing through the ring on the spring hook, and a cap adapted to secure the halves of the sleeve together and having a hole for the shank of the hook and an opening for the 25 spring tongue of the hook, whereby the shank of the hook is held, the tongue guided on the sides and the inward and outward movement of the tongue limited.

4. In a spring wire snap hook, the combi-30 nation of a sleeve b constructed of sheet

metal and shaped to form the semi-circular halves 11 11 having the beadings 12 12 and connected together by a strap 13 which when bent on the strap 13 and brought together form a cylindrical sleeve, and a cap 35  $\bar{c}$  having an annular lip 14 and a rounded top 15 in which is a hole 16 and an opening 17 having the sides 18 18 and the ends 19 and 20, said cap c being adapted to secure the halves 11 11 of the sleeve b together by roll- 40 ing the lip 14 on the cap over the beadings

12 12 on the sleeve, as described.

5. In a spring wire snap hook, the combination of a spring wire hook a having the ring 7, the spring tongue 8 and the hook-shaped end 45 10, a sleeve b formed of the halves 11 11 having the beadings 12 12 and connected by the strap 13, and a cap c having the annular lip 14 and a top 15 in which is a hole 16 and an opening 17, said cap c being adapted to se- 50 cure the halves 11 11 of the sleeve b together by rolling the lip 14 on the cap over the beadings 12 12 on the sleeve, as described.

In testimony whereof I have signed my name to this specification in the presence of 55

two subscribing witnesses.

FRANS EDWARD FORSELL.

Witnesses:

ADA E. HAGERTY, J. A. MILLER.