(No Model.)

H. E. KELLEY.

SWIVEL.

No. 449,324. Patented Mar. 31, 1891.

Fig. 1.

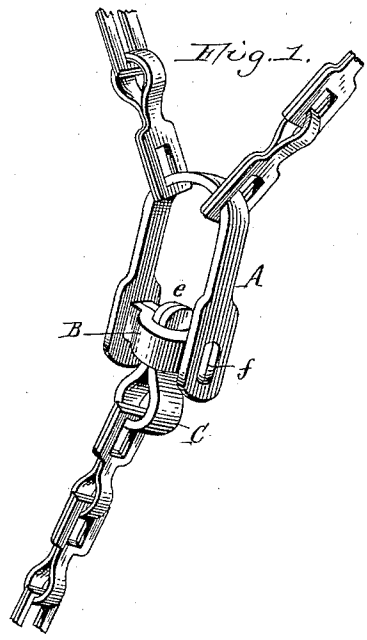


Fig. 2.

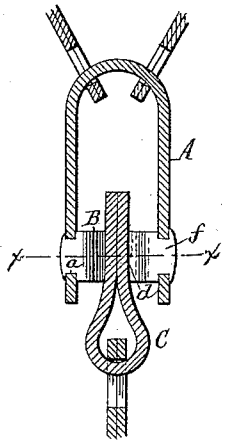


Fig. 3.

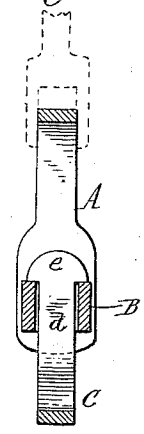


Fig. 4.

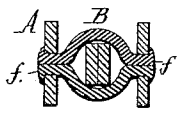


Fig. 5.

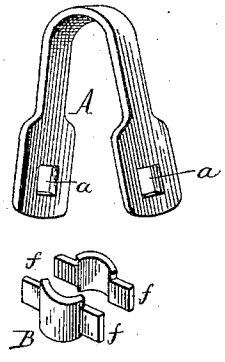


Fig. 6.

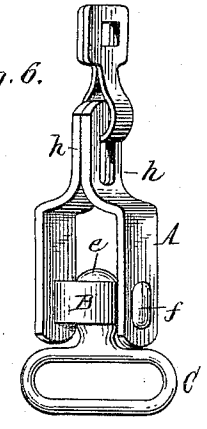


Fig. 7.

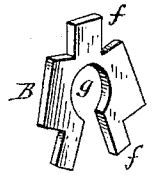
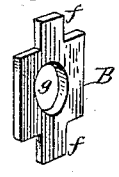


Fig. 8.



Witnesses.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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SWIVEL.

SPECIFICATION forming part of Letters Patent No. 449,324, dated March 31, 1891.

Application filed July 28, 1890. Serial No. 360,158. (No model.)

To all whom it may concern:

Be it known that I, HARRY E. KELLEY, a citizen of the United States, residing at Niagara Falls, in the county of Niagara and State of New York, have invented a new and useful Improvement in Swivels, of which the following is a specification.

This invention relates to swivels, and more particularly to a swivel which is designed to be stamped out of sheet metal.

My invention has for its object to improve the construction of the swivel so as to increase its strength and reduce its cost of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of my improved swivel applied to a chain or cow-tie. Fig. 2 is a longitudinal section thereof. Fig. 3 is a similar section at right angles to Fig. 2. Fig. 4 is a cross-section of the swivel in line *x x*, Fig. 2. Fig. 5 is a detached perspective view of the link forming part of the swivel with the eye separated therefrom. Fig. 6 is a perspective view of a modified construction of the swivel. Figs. 7 and 8 are perspective views showing a modified construction of the swivel-eye.

Like letters of reference refer to like parts in the several figures.

A represents a U-shaped link or strap forming part of the swivel, and B is an eye or collar arranged between the ends of the strap or link A. C is a loop forming the other member of the swivel and having a neck *d*, which is confined in the eye or collar B by a head or enlargement *e*, formed at the inner end of the loop. The ends of the link are provided with openings *a*, and the eye or collar is provided on diametrically-opposite sides with lugs *f*, which are arranged in the openings in the ends of the link and are secured therein by riveting or upsetting the outer ends of the lugs, as clearly shown in Figs. 1, 2, and 4. The eye B preferably consists of two similar halves or sections, each of which is formed with one-half of the eye and provided with a pair of lugs, which rest against the lugs of the other section. The loop C is preferably constructed of a straight bar or strip of sheet metal, which is formed at its ends with enlargements and bent or doubled at its center, so as to bring the enlargements against each other to form the head *e*. Before attaching the eye to the link A the latter is bent to the form represented in Fig. 5, with its ends sufficiently distended to admit the eye with its lugs between the ends. If desired, an ordinary cast-metal loop having a head and neck may be used in place of the sheet-metal loop, as shown in Fig. 6.

In connecting together the parts of the swivel the neck of the loop is first placed between the sections of the detached eye B, and the lug on one side of the eye is inserted into the opening in one end of the link. The ends of the link are then compressed, so as to pass the other opening of the link over the adjacent lug of the eye, after which the protruding ends of the lugs are headed or upset, whereby the eye is securely attached to the link.

If desired, the eye may be constructed in the form of a flat plate having a central opening *g*, which receives the neck of the loop, as represented in Figs. 7 and 8. The plate is formed with lugs, which are riveted in the openings in the link, as in the first-described construction, and the plate is split from one of its edges to the opening. The plate is stamped open or with its split portions separated to admit the neck of the loop into its eye, the latter being closed by a cold-shut before attaching the plate to the link.

Instead of forming the link A of a single piece or strip of metal, as shown in Figs. 1, 2, 3, and 5, it may be constructed of two similar parts, as shown in Fig. 6. In this construction the upper portions of the two parts forming the link are bent inwardly and upwardly to form ears or lugs *h*, the inner faces of which rest against each other when the eye is secured between the lower ends of the link. The ears or lugs *h* are perforated to receive the link of a chain or other connecting part.

My improved swivel is very cheaply manufactured, and all of its parts may be stamped out of sheet metal by suitable dies, rendering the swivel very strong.

The swivel is especially desirable for cowties, trace, or other chains; but it may obviously be applied to other articles in which a swiveling connection is required.

I claim as my invention—

1. A swivel composed of an open-ended strap or link, a split or divided collar formed separate from the strap and secured between the ends of the strap in apertures therein, and a loop having a neck swiveled in the collar and a head formed integrally with said neck, substantially as set forth.

2. The combination, with a link or strap having its ends provided with openings, of a divided eye or collar having lugs secured in the openings of the link and a loop swiveled in said eye, substantially as set forth.

Witness my hand this 19th day of July, 1890.

HARRY E. KELLEY.

Witnesses:
CARL F. GEYER,
JNO. J. BONNER.