H. A. SIEVERT.

SNAP HOOK OR THE LIKE.

APPLICATION FILED MAY 24, 1916.

1,236,014. Patented Aug. 7, 1917.

Fig. 1.

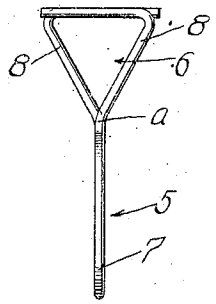



Fig. 2.

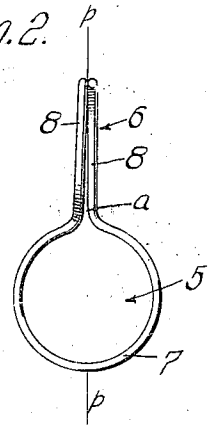



Fig. 3.

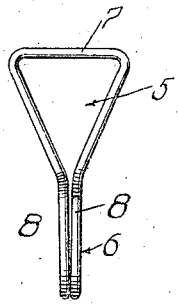



Fig. 4.

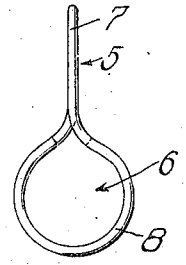



Fig. 5.

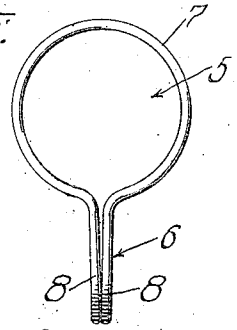



Fig. 6.

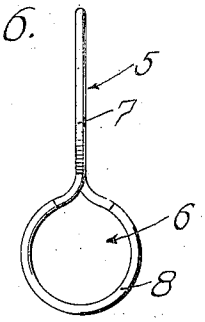



Fig. 7.

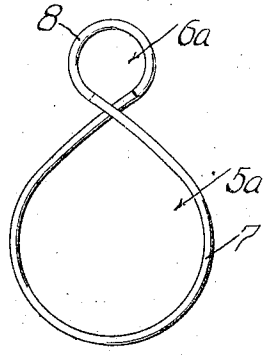






Fig. 8.

Inventor
Hermann A. Sievert,
by James T. Pendleton
his Attorney.

# UNITED STATES PATENT OFFICE.

HERMANN A. SIEVERT, OF LOS ANGELES, CALIFORNIA.

## SNAP-HOOK OR THE LIKE.

1,236,014. Specification of Letters Patent. Patented Aug. 7, 1917.

Application filed May 24, 1916. Serial No. 99,698.

*To all whom it may concern:*

Be it known that I, HERMANN A. SIEVERT, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Snap-Hooks or the like, of which the following is a specification.

This invention relates to such devices as snap-hooks, key rings, and similar articles; and it is the primary object of this invention to provide a simple, reliable and strong device primarily adapted to take the place of the ordinary snap-hook, but having certain other utilities, as will be hereinafter pointed out.

In my preferred form of device I make a snap-hook of a single piece of resilient wire; and it is an object of this invention to provide a device in such form that the necessary resiliency is attained without making the snap-hook excessively long or large in order to obtain the resiliency necessary for springing the parts away from each other to introduce or remove any article. My snap-hook is designed to engage any member such as a strap, loop, ring, link or any similar member; but its use can be best explained as for a bridle or harness snap where one end of the snap-hook engages a strap and the other end engages a ring or another snap, or another strap.

I have illustrated preferred forms of my invention in the accompanying drawings in which Figures 1 and 2 are side elevations of one form of device; Figs. 3 and 4 are side elevations of another form of device; Figs. 5 and 6 are side elevations of another form of device, and Figs. 7 and 8 are side elevations of another form of device particularly useful as a key ring.

It will be noted that, in each of the forms shown in the drawings, there are two loops which I designate by the numerals 5 and 6, or by $5^a$ and $6^a$ in Figs. 7 and 8. Each form of device is constructed entirely of a single piece of spring wire, the loop 5 in each case being formed of the central portion 7 of the wire, and the loop 6, in each case, being formed of the opposite end portions 8 of the wire. The loop 6 is formed by the overlapping end portions 8 of the wire; and these overlapping portions of the wire will be seen to be entirely on opposite sides of the plane of reference, indicated by the line $p$—$p$ in Fig. 2. This plane of reference is preferably central; that is, it passes through the center of the loop 5 and also passes through the center of length of the wire. In the form shown in Figs. 1 to 6 the loop 5 is at right angles to the plane of reference, while the loop 6 is substantially in that plane of reference, the end portions 8 of the wire lying substantially parallel to the plane of reference. It will be noticed that the opposite portions of the wire, considered from its middle outwardly, lie entirely, or substantially entirely, upon opposite sides of this plane of reference $p$—$p$. In other words, the wire does not twist or cross upon itself at any point when considered with reference to the plane $p$—$p$. And this particular form of construction is a very practical feature of my device. For instance, considering the form shown in Figs. 1 and 2, when it is desired to place a strap or a ring within the snap-hook, the two end portions 8—8 of the wire are sprung apart and the ring or loop or other article is slipped between the temporarily spread parts. Now it will be noted that, during this spreading action, the resiliency of the complete length of wire is utilized, the resilient action taking place clear down to the center of the wire. In other words, the resiliency of the whole of each of the portions of wire lying on the opposite sides of the plane $p$—$p$ is called into play. This would not be the case were the opposite parts of the wire crossed or twisted upon each other. As a result, in spite of the fact that the wire is comparatively short there is sufficient resiliency to allow the easy spreading of the parts and also sufficient resiliency and strength to close the parts together again; while, at the same time, there is adequate strength in the device to resist all strains put upon it without any liability whatever of deformation or breakage. If a strap or ring, etc., is inserted in the loop 6, it can then be moved into the loop 5 by again spreading apart the opposite portions of the wire. It will be noted that the absence of a twist or cross at the points denoted "$a$" in Figs. 1 and 2 make it possible to slip an article from one loop to another; but, nevertheless, on account of the resiliency and strength of the wire, no article will accidentally slip from one loop to the other.

My device may take many forms, as illus-

trated by typical forms shown in the drawings. In Figs. 1 and 2 I have shown a form of snap-hook or the like having a circular loop 5 and a triangular loop 6. The triangular loop is made particularly for engaging a strap or the like, while the circular loop 5 may engage a ring or another snap, etc. In Figs. 3 and 4 I have shown a form where the loop 5 is triangular and the loop 6 circular; while in Figs. 5 and 6 I show both loops circular. It will be apparent that, in general, the loops may be made in any configuration desired. In Figs. 7 and 8 I show both the loops circular; and the essential difference between the form shown in Figs. 1 to 6 and the form shown in Figs. 7 and 8 is that, whereas loops 5 and 6 of the first mentioned form are in planes at right angles to each other, the loops $5^a$ and $6^a$ in the second mentioned form are substantially in the same plane, being substantially in the reference plane *p—p*, indicated in Fig. 8. It will be seen that the reference plane *p—p* in Fig. 8 bears the same general relation to the wire and the loop as the reference plane *p—p* in Fig. 2, with the single exception that the loop $5^a$ stands substantially in that plane rather than at right angles to it as shown in Fig. 2. In the form shown in Figs. 7 and 8, as well as in the forms shown in Figs. 1 to 6, the opposite portions of the wire from its middle outwardly lie substantially wholly upon opposite sides of the reference plane *p—p*. It will be seen that, in the aspect shown in Fig. 7, the wire crosses itself; but, in the aspect shown in Fig. 8, the wire does not cross itself. There is no twisting of the wire upon itself; with the result, similar to result in the forms shown in Figs. 1 to 6, that the two opposite parts of the wire may be resiliently spread apart (to the right and to the left in Fig. 8) to insert an article either into the loop $6^a$ or into the loop $5^a$. Whereas the forms shown in Figs. 1 to 6 are primarily designed to be snap-hooks, the form shown in Figs. 7 and 8 is designed particularly as a key ring. As a key ring it has the advantage of having two loops in which two separated bunches of keys may be kept, making identification of keys much easier than in the ordinary form; and it also has the advantage of receiving and holding a key having a small aperture, and of holding such a small apertured key without the necessity of removing it from the ring when it is desired to insert another key.

My devices are seen to be, in their general nature, double fasteners, (clasps, snaps, or the like); of a simple and inexpensive form, designed to engage objects that hitherto could not be engaged without the use of buckles or similar auxiliary appliances; and designed to replace the unversally used snap by a stronger and more dependable article. It will be seen that my device is stronger and more dependable for the reason that there are no small springs (such as the small spring tongue of an ordinary snap-hook) and there are no rivets or other attaching means to become loose or broken. As compared with the ordinary snap-hook, my device is stronger because it is more in the nature of a link than a hook and has two sides (the opposite sides of the wire) to bear the applied strain, rather than the single side of an ordinary hook which bears the whole strain. These and many other advantages are apparent upon use of my device in its various forms. And the various forms which can be taken by my invention are not limited to the specific forms herein described; there are many variations, particularly as the forms of the loops 5 and 6, that will suggest themselves to users or those skilled in the art.

Having described a preferred form of my invention, I claim:

1. A snap-hook or the like, formed entirely of a single piece of resilient wire, having one loop formed by a single convolution of the central portion of the wire, and another loop formed by the bent over-lapping end portions of the wire, the opposite portions of the wire from its middle outwardly lying on opposite sides of a plane, and the overlapping ends of the wire being resiliently pressed against each other throughout their overlapping portions, and the two opposite portions of the wire coming close to one another at a point between the loops.

2. A snap-hook or the like, formed of resilient wire, having one loop formed by a single convolution of the central portion of the wire and lying in a plane substantially perpendicular to a plane of reference, and another loop formed by the bent overlapping end portions of the wire, said last mentioned loop lying substantially in said plane of reference, said bent end portions which form said last mentioned loop being substantially parallel to said plane of reference and being resiliently pressed against each other throughout their whole overlapping portions, and the two opposite portions of the wire coming close to one another at a point between the loops, and the opposite portions of the wire from its middle outwardly lying wholly on opposite sides of said plane of reference.

3. A snap-hook or the like, formed entirely of a single piece of resilient wire having one loop formed by a single convolution portion of the wire and lying in a plane substantially perpendicular to a plane of reference, passing through the center of the loop and through the center of length of the wire, and another loop formed by the bent overlapping end portions of the wire, said last mentioned loop lying substantially in

said plane of reference, said bent end portions which form said last mentioned loop being substantially parallel to said plane of reference, and being resiliently pressed against each other throughout their overlapping portions, and the two opposite portions of the wire coming close to one another at a point between the loops, and the opposite portions of the wire from its middle outwardly lying wholly on opposite sides of said plane of reference.

In witness that I claim the foregoing I have hereunto subscribed my name this sixth day of May, 1916.

HERMANN A. SIEVERT.

Witnesses:
A. L. DADE,
W. P. MOFFET.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."