

No. 865,956.

PATENTED SEPT. 10, 1907.

C. W. SPONSEL.

WIRE CLIP.

APPLICATION FILED JAN. 10, 1903.

Fig. 1.

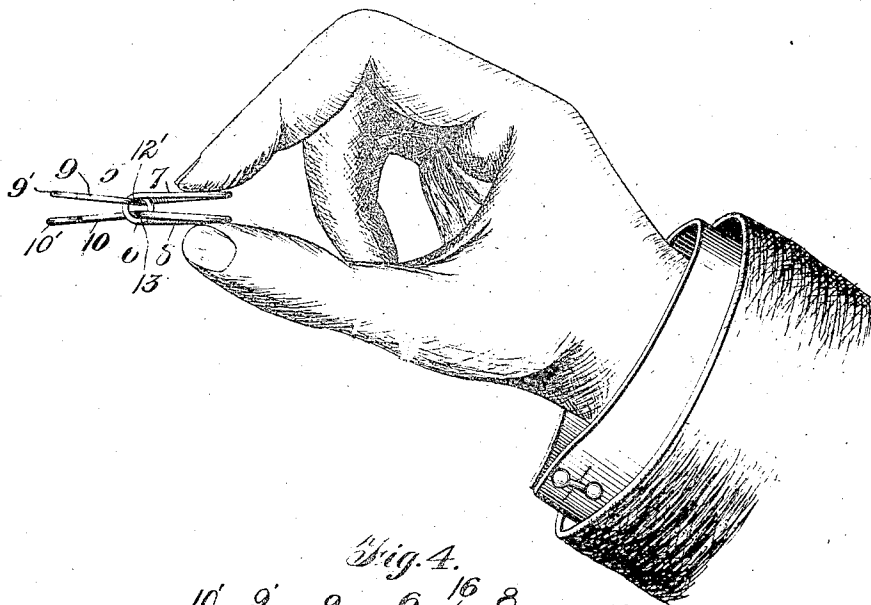


Fig. 4.

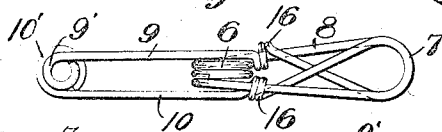


Fig. 2.

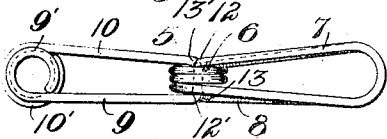


Fig. 3.

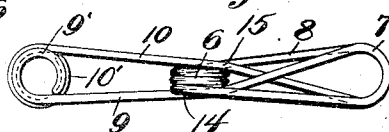
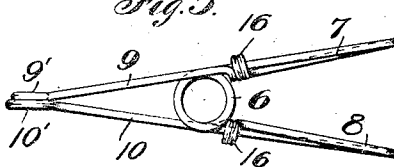


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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WIRE CLIP.

No. 865,956.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. SPONSEL, a citizen of the United States of America, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Wire Clips, of which the following is a specification.

My invention relates to wire-clips for general clasp- ing purposes, and it has for its object the provision of a clip of this character which will have a strong clasp- ing action upon the material, and the parts of which will be so united and braced that a structure of great strength and comparative rigidity and sufficiently resilient for practical purposes will be produced.

In the accompanying drawings, Figure 1 is a side elevation of the preferred form of my improved wire- clip, showing the manner in which it is opened. Fig. 2 is a plan view of the device shown in Fig. 1. Fig. 3 is a plan view of a modification; and Figs. 4 and 5 are, respectively, plan and side views of another modifica- tion.

Like numerals designate similar parts throughout the several views.

Referring to the drawings, the preferred form of my improved wire-clip is designated in a general way by the numeral 5, and it comprises a central coil or spring 6, elongated, loop-shaped lever-arms 7 and 8, respec- tively, constituting the thumb-and-finger grasps of the clip, and resilient lever-arms 9 and 10, respectively, projecting forward from said central coil, and constitut- ing the clasp- ing part of the clip lever-arm 9 being shown bent at its free end into a ring-shaped jaw 9', and the similar arm 10 into a jaw 10' of somewhat larger area than the said jaw 9'. These rings con- stitute the clamping-surfaces proper of the clip, and although preferably employed may be replaced by other forms of bent ends if desired.

Heretofore, in many wire-clips the clamping parts proper may have lateral and torsional motion, resulting frequently in slipping the end 9' of clamping-arm 9 beneath the end of clamping-arm 10, and consequently destroying the efficiency of the article. To prevent this dislocation of the parts, various means may be pro- vided, three of which are illustrated. In the pre- ferred form shown in Figs. 1 and 2 the wire is first bent into the central coil 6, and one end of it is then formed into the loop 7, after which the free end of said wire is passed through the eye of coil 6 and is bent sharply at right angles as at 12, 12', thus forming shoulders at each end of said coil which prevent lateral play of the clamping arm 9. So too, the other end of the wire is bent into the loop-shaped handle 8, is inserted through the eye of the coil and is similarly bent sharply at right- angles as at 13, 13' to form shoulders on each end of, and closely engaging the coil. In this way the coil, lever- arms and clamping parts of the clip are so braced and tied together that lateral motion of the arms 9 and 10

is prevented, and there is no liability of one part being thrown out of its proper place and thus impairing the utility of the clip.

In the form represented by Fig. 3 the same result is achieved by carrying the end of the wire after loop 7 has been formed beneath the arm of the loop adjacent to, and at one side of the coil 6 as at 14, and then contin- uing it to form the ring 9',—the other end of the wire projecting from the coil being first bent to form loop 8 and then carried above the arm of the loop adjacent to coil 6 as at 15. In this way the clamping arms 9 and 10 pass respectively, on opposite ends of the coil and bear with spring-pressure against said ends, thus so uniting the parts that the tendency of either arm 9 or 10 to move laterally and throw one of the rings below the other will be resisted.

In Figs. 4 and 5 the handle-loops 7 and 8 are first formed in the same manner as in Fig. 3, and the resilient lever-arms 9 and 10 are then coiled around the side- bars as at 16, are carried forward in close engagement with the ends of coil 6, and are finally bent into the grasping-surfaces or clasp- ing jaws 9' and 10'.

In all of the views the upper grasping-jaw 9' is shown as of less diameter than the lower one, the conse- quence being that one jaw nests within the other and tends to force the paper or other article to be clamped slightly within the opening of said lower jaw. Both jaws may, however, be of the same size without depar- ture from the invention.

From what has been stated, it will be seen that a strong and resilient wire-clip, the elements of which are braced and so tied together that the clamping-arms will not be displaced is produced, one that will be use- ful for securing papers, clothes and other articles, and one that can readily be made either by hand or machin- ery.

Having thus described my invention what I claim is:

1. A clip made of one piece of wire having a coil with its axis across the clip; two elongated loop-shaped lever- arms constituting the thumb and finger-grasps of the clip; and two resilient clamping-lever arms composed of one strand of wire each constituting the clasp- ing part of the clip, such clamping-lever-arms passing respectively on opposite ends of the coil, and bearing with spring-pres- sure against said ends.

2. A clip made of one piece of wire having a coil with its axis across the clip; two elongated loop-shaped lever- arms constituting the thumb and finger-grasps of the clip; and two resilient clamping-lever-arms composed of one strand of wire each, constituting the clasp- ing part of the clip, such clamping lever-arms passing, respectively, into opposite ends of the coil, and bearing with spring- pressure against said ends, the two arms having at their ends the coils, one larger than the other.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES W. SPONSEL

Witnesses:

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FRANCES E. BLODGETT.