(No Model.)

J. K. P. NOURSE.

CLOTHES PIN.

No. 335,299. Patented Feb. 2, 1886.

Fig. 6.

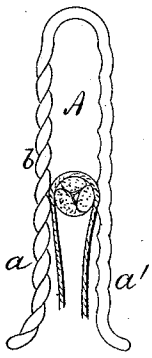


Fig. 1.

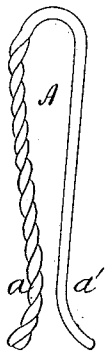


Fig. 4.

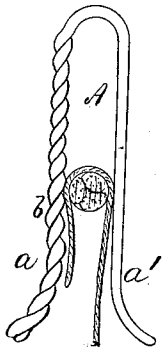


Fig. 8.

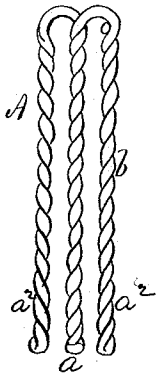


Fig. 7.

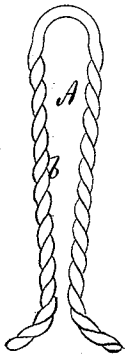


Fig. 2.

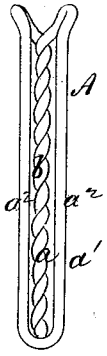


Fig. 5.

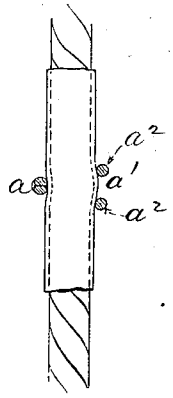


Fig. 9.

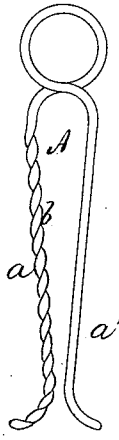
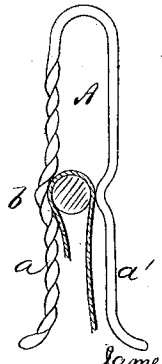


Fig. 3.



Fig. 10.



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UNITED STATES PATENT OFFICE.

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CLOTHES-PIN.

SPECIFICATION forming part of Letters Patent No. 335,299, dated February 2, 1886.

Application filed October 22, 1883. Serial No. 109,733. (No model.)

To all whom it may concern:

Be it known that I, JAMES K. P. NOURSE, a citizen of the United States, residing at West Medway, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Metallic Clamps or Holders, of which the following is a specification.

My improvements relate to that class of metallic clamps or holders in which the elasticity of the metal is relied upon to keep the clamp in the desired position and to bind and retain the parts to be secured. They are especially adapted to clothes-pins and clips or holders for retaining or suspending samples or attaching tags temporarily thereto, although applicable to a large variety of uses in which an elastic clamp is desired.

I am aware that heretofore wire clamps have been constructed with a limb upon one side intervening in position between opposed limbs upon the other side, and that they have been formed with indentations or depressions in their limbs for engaging the articles to be clamped.

My invention consists in a clamp constructed of a single piece of wire, the middle portion of which is bent into an elongated loop to form the limbs upon one side of the clamp, while the free ends are doubled and twisted together to form the opposing intervening limb, the series of depressions formed by and between the convolutions of the wire in the latter assisting in use in holding and retaining the articles to be clamped between the limbs of the device. By thus bending and twisting the outer or free ends of the wire together to form one of the limbs of the clamp the device is secured and strengthened as a whole, and especially at what would otherwise be its weakest part.

In the accompanying drawings, Figure 1 is a side elevation of one of my improved wire clamps. Fig. 2 is a similar view at right angles to Fig. 1; Fig. 3, an end view of the construction shown in Figs. 1 and 2. Fig. 4 is a view illustrating the actual use of the clamp. Fig. 5 is a transverse section through Fig. 4, taken upon a plane just above the articles therein shown as clamped together, and illustrating the relative arrangement of the bearing-surfaces and their pinching or deflecting action upon the material placed between the limbs of the device. Figs. 6 and 7 are side elevations of my improved clamp, showing alternative forms of bearing-surfaces. Fig. 8 is a view of the form shown in Fig. 7, taken at right angles to the latter. Fig. 9 is a side elevation showing the clamp formed with a loop or handle. Fig. 10 is a side elevation showing the clamp formed with an offset or depression for the reception of the article to be clamped.

The clamp A is made from any suitable metallic wire, being bent over dies or formers or otherwise made to conform to the desired shape, which latter may be varied more or less in general design, according to the use for which the clamp is intended, provided the essential feature of the intervening and roughened bearing-surfaces is retained.

In the drawings the clamp is shown as adapted for use more especially as a clothes-pin and for analogous purposes.

The clamp is preferably formed from a single piece of wire, the ends $a\ a$ of which are secured together by twisting or otherwise, and form one of the jaws, a, of the clamp, while the other jaw is formed by bending the remaining or central portion, a', of the wire over into suitable proximity to the other jaw, a. The central portion, a', of the wire may be left in the form of an elongated loop, as shown in Figs. 2 and 5, the arms $a^2\ a^2$ of which constitute independent bearing or contact surfaces, which together form the jaw a'; or, by using a longer piece of wire, each arm $a^2\ a^2$ of the duplex jaw a' may be formed independently by doubling and twisting suitable portions of the wire upon itself, as shown in Figs. 7 and 8. In either case the single jaw a is made to occupy a position opposed to, but "breaking joints" with or intervening between, the arms $a^2\ a^2$ of the duplex jaw a', as will be understood by reference to Figs. 2, 3, 5, and 8. By this means the elasticity of the metal, when the clamp is in use, tends constantly to bend or pinch the material between the jaws laterally into and between the arms $a^2\ a^2$ of the duplex jaw a', as clearly shown in

Fig. 5, and thus prevent the article from moving longitudinally along the line or other object to which it is clasped.

In order to prevent the clamp from slipping or being accidentally displaced during use, I form either one or both the jaws with a series of indentations, corrugations, or inequalities, *b b*, which, owing to the elasticity of the clamp, engage with and grasp the material interposed between the jaws, and prevent its working loose or slipping therefrom. These indentations or inequalities *b b* are formed by simply twisting two thicknesses of the wire together, as shown in the several figures in the drawings.

As in the majority of cases in which such a device is used the line or other object upon which the article is to be suspended is circular or curvilinear in cross-section, it is obvious that the concavities in the bearing-surfaces of the clamp will act in conjunction with the convexity thus opposed.

What I claim as my invention, and desire to secure by Letters Patent, is—

A clamp consisting of a single piece of wire, of which the middle portion is bent into an elongated loop to form the limbs upon one side of the clamp, and the free ends are doubled and twisted together to form the opposing intervening limb, substantially in the manner and for the purpose described.

JAMES K. P. NOURSE.

Witnesses:
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A. M. B. FULLER.