

M. M. BEEMAN.
GARMENT STAY.
APPLICATION FILED DEC. 5, 1908.

1,063,408.

Patented June 3, 1913.

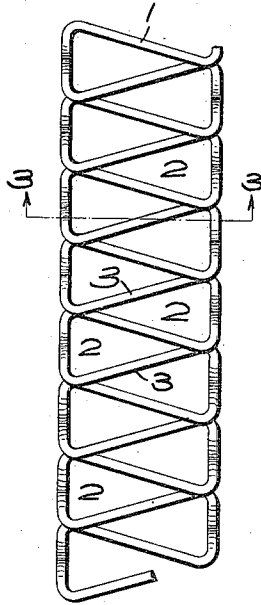


FIG. 1.



FIG. 2.

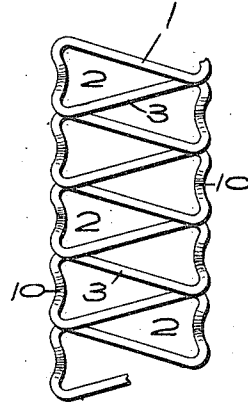


FIG. 4.

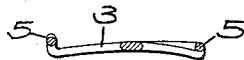


FIG. 3.

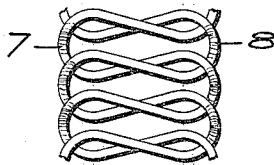


FIG. 5.



FIG. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

MARCUS M. BEEMAN, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR TO THE SPIRELLA COMPANY, OF MEADVILLE, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

GARMENT-STAY.

1,063,408.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed December 5, 1908. Serial No. 466,149.

To all whom it may concern:

Be it known that I, MARCUS M. BEEMAN, a resident of Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Improvement in Garment-Stays, of which the following is a specification.

This invention relates to stays for garments and the like, and more particularly to stays for corsets.

The object of the invention is to provide a stay for this purpose which yields readily in all directions, in which the bending is not concentrated at a point or few points so as to avoid crystallization and breakage, and particularly one which is perfectly elastic and which has a high degree of strength and resiliency for the size of wire employed.

The invention comprises the stay herein after described and claimed.

In the accompanying drawing Figure 1 is a face view of the stay; Fig. 2 is an edge view thereof; Fig. 3 is a cross-section thereof on the line 3—3, Fig. 1; Fig. 4 is a face view of a modification; Fig. 5 is a face view of still another modification; and Fig. 6 is an edge view thereof.

The stay shown in Figs. 1 to 4 is formed from a single continuous wire 1 which is bent back and forth to form a series of oppositely disposed loops or eyes 2, with substantially transverse intermediate connecting portions or crossings 3. These loops or eyes may be of any desired form and are shown substantially triangular, wide at their closed ends and tapering toward their open ends, so that the intermediate connecting portions 3 converge toward the open end. These eyes or loops are shown as overlapping, each onto the adjacent one and having a bearing thereon. This is not absolutely essential but is desirable as thereby the bending stresses of any one loop or eye are transferred to the adjacent loops or eyes, so distributing the bending movements and avoiding concentration thereof at a point or few points and preventing crystallization and breakage. This construction also gives greater strength and rigidity to the stay.

Preferably the intermediate connecting portions 3 are deflected from the normal plane of the stay to render said stay concave in cross section, as shown in Fig. 3 so as to make the stay stiffer than it otherwise

would be and also to increase its resistance against bending in one direction more than in the other, which is of importance in garment stays in which the bending stresses are practically all outwardly.

To still further increase the strength and resiliency of the stay, and also to further increase its ability to resist stresses tending to bend it in one flatwise direction more than in the opposite flatwise direction, the wire in the closed end portions of the loops or eyes is bent or crimped flatwise from the plane of the stay, as shown at 5. This bending or crimping renders the end portions of the loops concave when the stay is viewed edgewise, as in Fig. 2. Such bending or crimping may be either upwardly or downwardly, that is, either in the direction of the concave side of the stay or in the opposite direction. Figs. 1 and 3 show the wire of the loop deflected toward the convex side of the stay, and therefore such crimping adds to the effect due to the concaving of the stay as a whole, and provides a stay which possesses to a high degree the ability to resist bending in one flatwise direction and a lesser ability to resist bending in the opposite flatwise direction. Consequently, this particularly adapts the structure for a garment or corset stay, as it is merely necessary to place the stay in the garment with the concave side inwardly in order to develop the maximum strength of the stay. The deflected portions of the wire also increase the strength of the wire at the curved closed portions of the loops and therefore increase the strength and resiliency of the stay as a whole, confining the stresses due to the flatwise bending practically to a twist or torsion in the transverse portions or crossings 3. As a consequence, lighter and thinner wire can be used without sacrificing strength, and this again adds to the ability of the stay to resist taking a permanent set.

The stay may be formed of a plurality of wires. Figs. 5 and 6 show the same composed of two wires 7 and 8, having every other loop formed in one wire and the alternate loops formed in the other wire, but with the loops partly overlapping and bearing against each other, so that the bending stresses are transferred from one loop to another and distributed in the same manner as with a single wire.

If desired, the wire may be simultaneously crimped in two directions, that is, both sidewise from the plane of the stay and laterally in said plane as shown in Fig. 4 at 10.

5 What I claim is:

1. A garment stay comprising wire bent to form two series of loops or eyes and having the wire of the closed ends thereof indented or crimped sidewise from the plane
10 of the stay.

2. A garment stay comprising wire bent to form two series of oppositely disposed loops or eyes having the wire at their closed ends curved out of the plane of the stay and
15 toward the center line thereof, all of the loops being curved in the same direction.

3. A garment stay comprising wire bent to form two series of oppositely disposed loops or eyes with the intermediate connecting
20 portions deflected in the same direction from the plane of the stay, whereby the stay in cross-section is concave on one side said loops or eyes having their closed ends indented or crimped sidewise from the plane
25 of the stay.

4. A garment stay comprising wire bent to form two series of loops or eyes and having the wire of their closed ends indented or

crimped both sidewise from the plane of the stay and laterally in said plane. 30

5. A garment stay comprising wire bent to form two series of oppositely disposed loops or eyes with the intermediate connecting portions or crossings deflected from the plane of the stay to render said stay
35 concave in cross section, said loops or eyes having their closed ends indented or crimped flatwise from the plane of the stay toward the convex side thereof.

6. A garment stay comprising wire bent 40 to form two series of oppositely disposed loops or eyes having the wire at their closed ends curved out of the plane of the stay and toward the center line thereof, the crossings or connecting portions between said loops
45 being deflected from the plane of the stay in the same direction as the wire at the end thereof to render said stay concave in cross section.

In testimony whereof, I have hereunto set
50 my hand.

MARCUS M. BEEMAN.

Witnesses:

J. H. PARDEE,
A. J. PALM.

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