

(No Model.)

J. G. AVERY.

CORSET.

No. 263,379.

Patented Aug. 29, 1882.

Fig. 1.

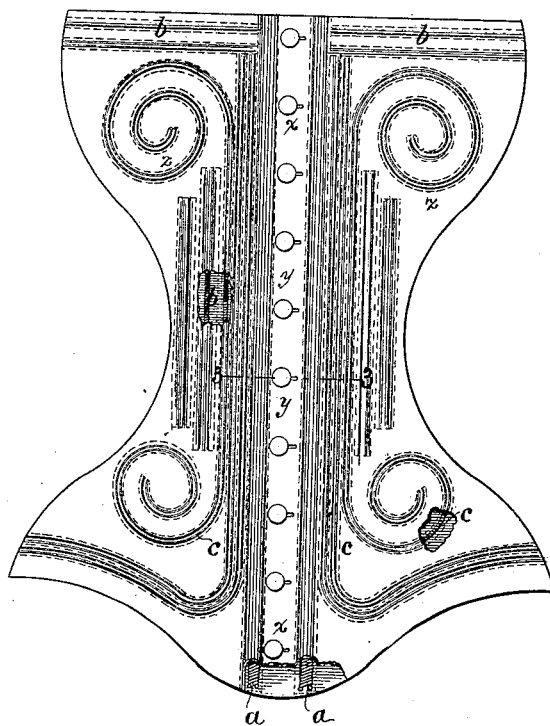
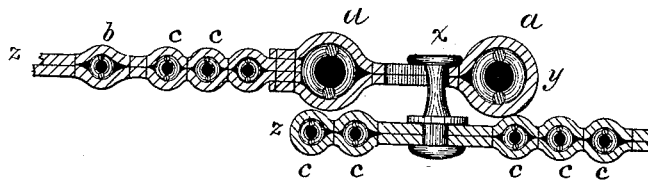


Fig. 2.



Fig. 3.



WITNESSES

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JOHN G. AVERY, OF SPENCER, MASSACHUSETTS.

## CORSET.

SPECIFICATION forming part of Letters Patent No. 263,379, dated August 29, 1882.

Application filed June 6, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN G. AVERY, a citizen of the United States, residing at Spencer, in the State of Massachusetts, have invented a new and useful Improvement in Corsets, of which the following is a specification.

This invention relates to the "stiffeners" of corsets and other stiffened article of ladies' wearing-apparel, such as bustles and hoop-skirts.

Prior to my invention the use or application of "close-coiled wire" as stiffeners for corsets has been proposed, ordinarily spirally-coiled single wire being used and referred to. In practice such "single-wire coils" are found to be deficient in the primary quality of stiffness unless made of a weight and diameter which preclude their use. By constructing, applying, and using instead an article, hereinafter specified, which I term "multiple wire," consisting of close spiral coils of two or more wires each, the requisite stiffness is obtained without increased diameter, weight, or amount of stock, while stiffeners of this multiple wire of any desired length can be made so as to be applied continuously, if desired. Moreover, owing to their great stiffness in proportion to their weight, these multiple-wire stiffeners can be used to advantage as substitutes for "steels" or "busks" as well as for whalebones and the like in corsets, and also as substitutes for "hoop-wire" in bustles and hoop-skirts, with freedom from liability to break and from sharp edges.

In the accompanying drawings, which form part of this specification, Figure 1 is a front view of a corset with my improved stiffeners, portions of the outer thickness of fabric being removed to expose illustrative stiffeners. Fig. 2 is a view of a piece of one of the stiffeners magnified, and Fig. 3 represents a cross-section through the front of the corset on the same scale as Fig. 2.

Like letters of reference indicate corresponding parts in the several figures.

The body fabric of the corset (represented at *z y*) may be of any approved description, cut, and make up, and its fastenings *x* may be of any preferred form. I have shown buttons and button-holes, as these can most readily be used in connection with multiple-wire substitutes for front steels. Multiple-wire stiffeners

so applied are shown at *a*. Others applied in ordinarily-arranged pockets are shown at *b*, and still others, arranged continuously so as to extend transversely across the lower portions of the corset, as well as longitudinally, are shown at *c*. The improved stiffeners may be thus applied with great advantage in abdominal corsets. Each multiple-wire stiffener is a close spiral coil, formed by coiling two or more similar wires, 1 2, Fig. 2, around a suitable mandrel, which may consist of a piece of the same wire, and then withdrawing the latter, the wire employed being preferably steel wire hardened uniformly either before or in the act of coiling. The length originally need only be limited by that of the individual wires, and wire of a given length will obviously produce multiple-wire coils two or more times as long as its equivalent single wire, which is advantageous in manufacturing multiple wire for "continuous" stiffeners *c*. Cut to proper lengths for individual stiffeners, the multiple wire may be tempered with any desired "set" for its respective positions, like ordinary corset-steels. For preventing rust I propose to tin or nickel-plate the multiple wire or to use what is known as the "Barff Bown rustless-iron" process.

When in position and in use multiple-wire stiffeners possess and utilize a greatly-increased power to resist lateral bends as compared with single coils of the same wire. This stiffness is produced not only by the increased sectional area of metal in each stiffener, but by the greater inclination or pitch of the successive convolutions of each wire, which reduces flexibility, and by that tensile and frictional resistance to the lateral displacement of the individual convolutions which is due to the more than multiplied resistance to elongation which a close multiple-wire coil possesses as compared with a close single coil, and the overlapping of the successive convolutions of one wire by those of another, as seen in Fig. 2. Moreover, the multiple-wire stiffeners possess said quality of superior stiffness in and of themselves without the loss of any other useful quality and without any addition to their weight or bulk or material increase of cost as compared with those of close single-wire coils of the same stock.

The multiple-wire stiffeners will ordinarily

be "sewed in" in the process of making up the article, as illustrated at *a* and *c*, Fig. 3; but owing to their stiffness they are peculiarly adapted to be used even loosely in ordinary bone pockets, as shown at *b*.

Having thus described my said improvement, I would have it understood that I do not claim broadly corset-stiffeners of wire in the form of close spiral coils, as this, I am aware, is not new; but

I claim as new and of my invention—

1. A multiple-wire stiffener for corsets and like articles composed of two or more wires in one and the same close spiral coil, with the successive convolutions of each wire separated and overlapped by those of the other wire or

wires, as herein specified, for the purposes set forth.

2. The combination, with the body fabric of a corset or like article, of multiple-wire stiffeners, each composed of two or more wires overlapping each other in a close spiral coil and re-enforcing each other as to stiffness, substantially as herein set forth.

3. As a new article of manufacture, a corset provided with stiffeners of multiple wire, each composed of two or more wires in a close spiral coil, substantially as herein described.

JOHN G. AVERY.

Witnesses:

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