G. C. BISHOP.

COIL-SPRING GARTER.

No. 173,440. Patented Feb. 15, 1876.

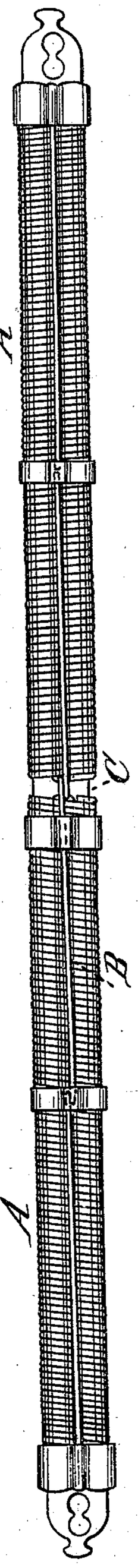

Fig. 1.

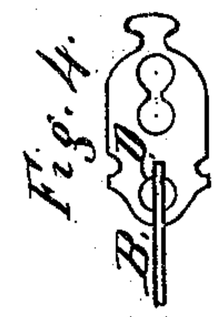

Fig. 4.

Fig. 3.

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE C. BISHOP, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN COIL-SPRING GARTERS.

Specification forming part of Letters Patent No. **173,440**, dated February 15, 1876; application filed January 28, 1876.

To all whom it may concern:

Be it known that I, GEORGE C. BISHOP, of Bridgeport, Fairfield County and State of Connecticut, have invented a new and Improved Elastic Garter; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and the letters of reference marked thereon, in which the same letter represents the same thing in each figure.

Figure 1 represents a stocking-garter with my improvements applied thereto. Figs. 2, 3, and 4 represent detached parts of the same.

A and A′ represent the wire springs; B, the elastic stay; C, the clamp; D, the slotted clasp-plate.

Heretofore, elastic garters have been made of a single, uncovered, round coiled wire, one end of the wire hooking into a loop in the other end, without stay; also, of two uncovered, flattened, parallel coils, joined at their ends and without stay; also, of two uncovered, flattened coils, with an inelastic stay, as long as the coils were to be distended, inside of each coil, the coils joined together at one or more points between the fastening-ends.

The object of my invention is to produce a garter made of a single uncovered flattened paracentrical coil, stayed at different points between its fastening ends by an external lateral elastic or non-elastic stay, which shall be of cheaper construction, susceptible of neater finish, and much stronger and more durable in use.

My improved elastic garter is made in this way: Spring-wire A is coiled into a round spiral, with a twist from right to left; spring-wire A′ is then treated in the same manner, except the twist is given from left to right. Both springs are then made paracentrical under properly-shaped dies. Ends of each are then brought together and fastened by an ordinary four-pronged spangle or clamp, C, about which stay B is wrapped once and carried in each direction about half-way to the end, when it is wrapped about a strand of the coil and then continued to each end, where it is permanently secured by clasp-plate D. Metallic bands are then slipped over the spangle and the intermediate points at which stay B is wrapped about the strands. Clasp-plates D and the ends of the coils are then united by pressing the hooked ends of the clasps into the coil, the spring of the coils securing them upon the narrower portion of the hooks. Metallic tips are then slipped over the clasps and ends of the coils and pressed down, covering the ends of stay B. The clasps are interchangeable, each being a hook and each an eye by itself.

The advantages of my improved elastic garter over former contrivances are these:

The single uncovered round coiled stayless wire, with a hook at one end of the wire and an eye at the other, were of little value, because of liability to roll out of position on the limb, and, having no stay to limit the strain upon the spring, elasticity was soon lost.

The two uncovered stayless flattened parallel coils overcame the tendency to roll, but provided nothing to preserve the elasticity.

The two uncovered flattened coils with inelastic stays, of length equal to that of distended coils, served to prevent loss of elasticity in the springs, in case of a straight pull, before the garter was applied, but did nothing (as they would then be slack) to prevent the loss of elasticity in sections of the coils when worn. But the greatest objection to their use arose from the tendency of the adjoining coils to interlock or interstrand when stretched, and no practical number of bands wholly prevented it. Two coils necessitated the use of very fine wire, which lasted but a short time.

By my paracentrical coil, twisted to the right and to the left from the center, all tendency to kink or twist is obviated; a greater bearing-surface upon the limb is obtained; there can be no interlocking of the strands; a much larger and stronger wire may be employed; a groove is presented for the stay; a light external stay interferes but little with the ventilation, being also well removed from the limb; staying between the center and the ends prevents the garter from being unduly stretched in sections. The double-clasp plates are economical to manufacture, and if one hook breaks, the utility of the garter is not thereby destroyed.

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

1. An elastic garter, composed of a single flattened paracentrical coil-spring, with an external stay, connected at one or more points to the spring between the fastening-ends, substantially as described.

2. An elastic garter, composed of two or more springs joined laterally at their ends and twisted in opposite directions toward their ends, for the purpose herein set forth, substantially as described.

3. An uncovered single coil elastic garter, in two or more sections, twisted in opposite directions from the center toward the ends, paracentrical in form, with an external stay, having intermediate connections with the coil, substantially as and for the purposes described.

4. A garter, provided with end clasp-plates, constructed substantially as described, and either of which may be used as a hook or an eye, as specified.

GEORGE C. BISHOP.

Witnesses:
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