W. H. STAFFORD & S. S. COOK.

DEVICE FOR SECURING AND PROTECTING TAPES.

No. 192,136. Patented June 19, 1877.

Fig. 1.

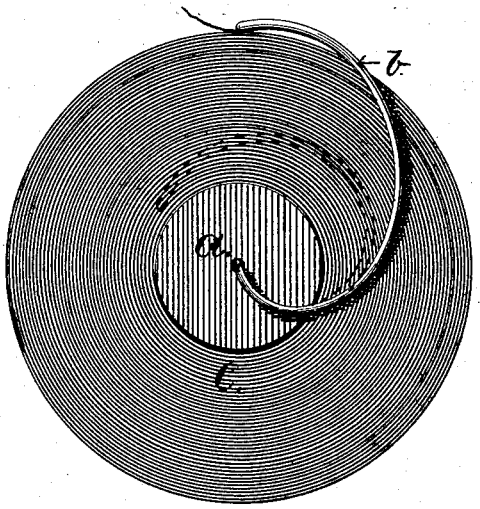
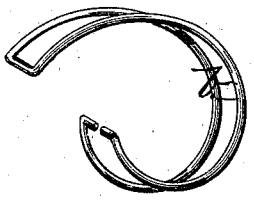


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM H. STAFFORD AND SIMEON S. COOK, OF WOONSOCKET, R. I.

IMPROVEMENT IN DEVICES FOR SECURING AND PROTECTING TAPES.

Specification forming part of Letters Patent No. **192,136**, dated June 19, 1877; application filed April 25, 1877.

To all whom it may concern:

Be it known that we, WILLIAM H. STAFFORD and SIMEON S. COOK, both of Woonsocket, in the county of Providence and State of Rhode Island, have invented Improvements in a Device for Securing and Protecting Tapes; and we hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a coil of tape or other similar material, and Fig. 2 a wire spring in perspective.

The object of this invention is to firmly secure tape or other narrow fabric to a central spool so that any desired quantity may be unwound or rewound, and the tape be always firmly retained, not only to secure the end, but to allow a roll of tape to be handled and thrown about without injury; and it consists in the use of a curved wire spring, made by bending a piece of wire and securing the ends at the center of the spool, as will be more fully set forth hereinafter.

In the drawings, *a* is the spool; *b*, the bent wire spring; and *c*, the tape or other narrow fabric. The spring *b* is made by bending a wire, as shown in Fig. 2. The two ends enter the hole in the center of the spool, and are bent so as to pass on a curve along the sides of the wound tape and press on the periphery with the portion uniting the two side springs. When the tape is wound or unwound the wire spring *b* will always hold it firmly to the spool. The two springs, forming the two curved sides, form a guide in winding, and the parts thereof which are secured in the center and united at the periphery form a strong support to the tape on the spool, holding the same firmly, not allowing the center to be pushed out, and thus the whole spool may be unwound by the ordinary handling, or the usual throwing from one person to another, when several persons are using tape or other narrow fabric from the same spool.

When a clip is secured by elastic material, such as rubber, in the center of the spool, narrow tape—and particularly when the spool is full—is liable, in handling, to have the central portion pushed out, and the whole has to be rewound. With the wire spring *b*, as shown, this cannot happen, and the tape may be handled freely, may be wound or unwound, and the wire spring *b* will at all times firmly hold the same.

In Fig. 1 the spring-clip is shown in solid lines on a full, and in broken lines on a nearly empty, spool.

Spools of tape and other narrow fabric must be handled so much, and usually by persons whose time is truly money, that any advantages gained in their use become of great importance, not only to the sewing woman, but to the trade.

Heretofore springs have been formed from sheet metal, the same being secured to or forming a part of sheet-metal supports, which were pivoted to the axis of the spool. This construction has been found defective in this, that by securing the two supports together, either by the spring itself or by the separate strip of metal to which the spring was attached, the capacity of the spool to the amount of material that could be wound between the axis of the spool and the said strip was limited. Our construction entirely obviates this objection by dispensing with the said strip altogether, and making the entire spring and support of spring wire, whereby the capacity of the spool may be greatly increased, the only limit to such capacity being the space between the axis of the spool and the connecting-bar that joins the two curved springs *b b''*.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The combination, with the spool *a*, of the curved wire spring *b*, pivoted directly to the spool, arranged to support the sides of the tape-roll and to press upon the periphery, substantially as and for the purpose described.

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Witnesses:
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