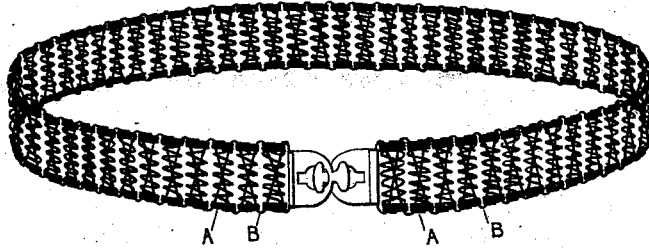


T. J. CARROLL.  
COIL SPRING BANDS.

No. 187,510.

Patented Feb. 20, 1877.

*Fig. 1.*



ATTEST :

*John W. Ripley*  
*Frank McLaughlin*

*Thos. J. Carroll*  
*by L. J. Gordon his Atty*  
INVENTOR .

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FIG 2.

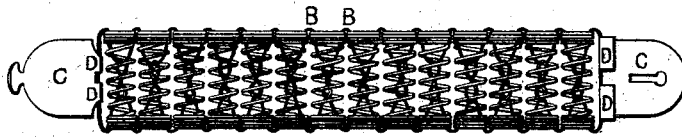
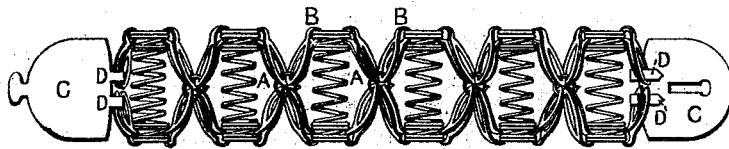


FIG 3.



ATTEST.

*John W. Ripley*  
*Geo. D. Ripley*

*Thos. J. Carroll*  
*by L. J. Gordon, Atty.*

INVENTOR..

# UNITED STATES PATENT OFFICE.

THOMAS J. CARROLL, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO FRED A. NICKERSON, OF SAME PLACE.

## IMPROVEMENT IN COIL-SPRING BANDS.

Specification forming part of Letters Patent No. 187,510, dated February 20, 1877; application filed December 18, 1876.

*To all whom it may concern:*

Be it known that I, THOMAS J. CARROLL, of Bridgeport, Fairfield county, and State of Connecticut, assignor of an undivided half to FRED A. NICKERSON, of said Bridgeport, have invented a new and Improved Coil-Spring Band; 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 letters represent the same thing in each figure.

Figure 1 is a perspective view of my improved band. Figs. 2 and 3 show other methods of uniting the coils.

A A represent the spring-coils; B, the cord; C, the clamp; D, the fangs thereon.

The object of my invention is to produce a coil-spring band for garters, armlets, suspenders, belts, &c., which shall be of cheap construction, durable in character, and possess the qualities of lightness and ventilation, so essential to comfort and health in such an article, especially when used for garters. I accomplish this by uniting a series of single spring-metal coils, A A, by a suitable cord, or

links of metal, or some fibrous material, elastic or otherwise. Clasp C is secured to the cord or links by fangs D D. A double coil may be used, if preferred.

It will be observed that in this band, when in use, the coils contract to obtain the elastic force, while in all previous coiled spring-bands that force is obtained by the expansion of the coil, the advantages of which are cheapness, a more delicate and easy action upon the limb, and diminished liability to fracture.

The ordinary clasp may be affixed upon the cord or upon the coils.

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

1. In an elastic band, the combination of the transverse springs A A and cord or link B, constructed and arranged to operate as described.

2. In an elastic band, the combination of transverse springs A A, cord or link B, and clasp C with the securing-fangs D D, constructed and arranged to operate as described.

THOMAS J. CARROLL.

Witnesses:

S. J. GORDON,  
GEO. D. RIPLEY.