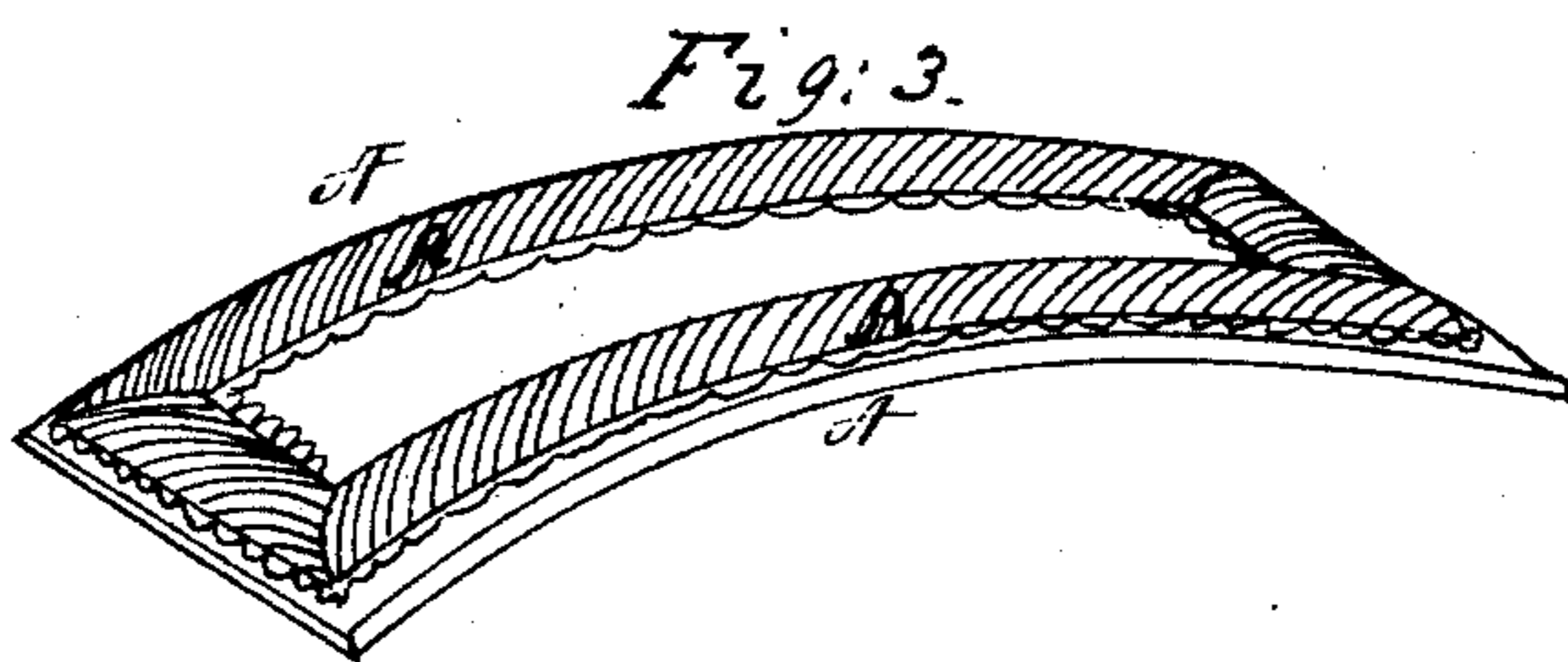
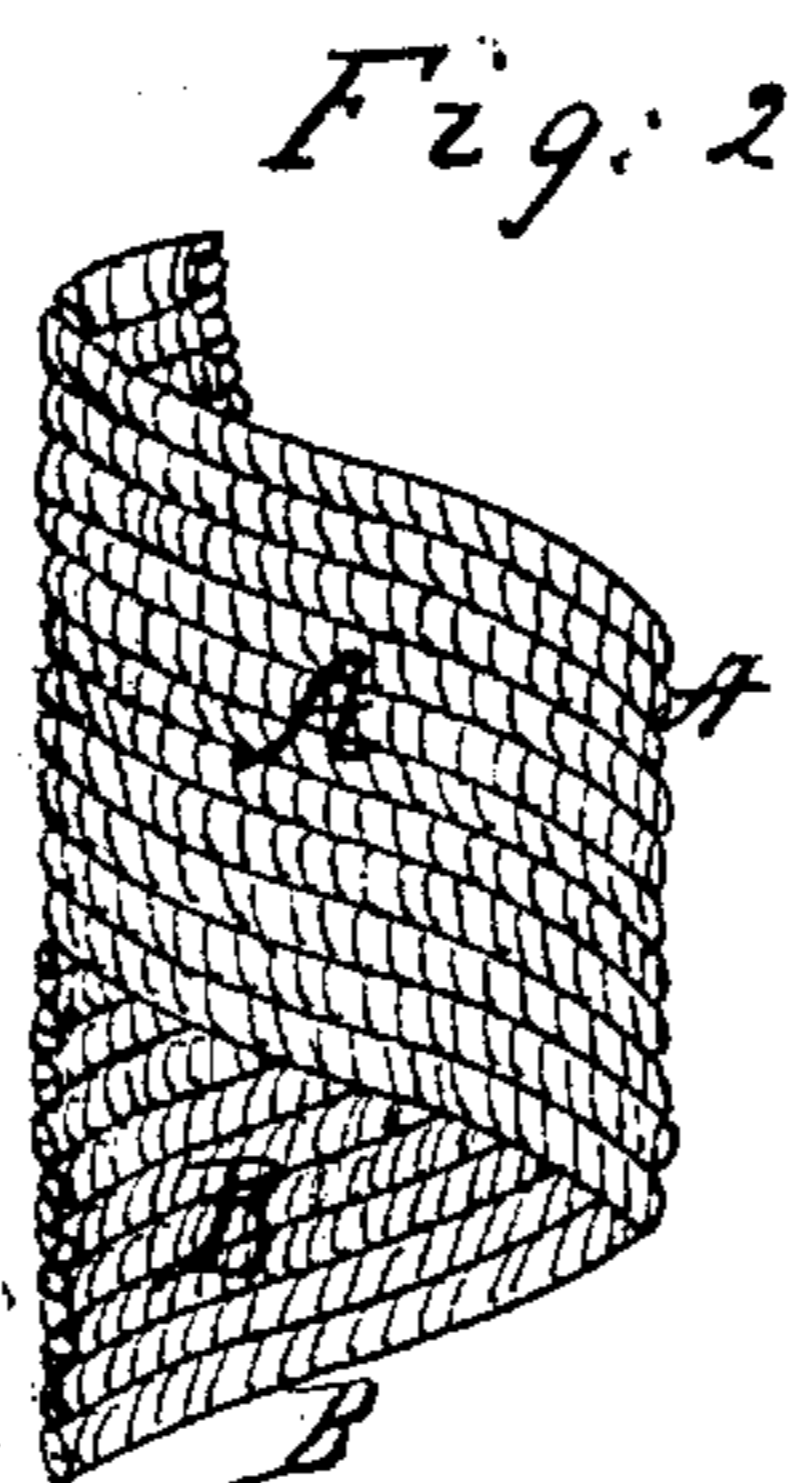
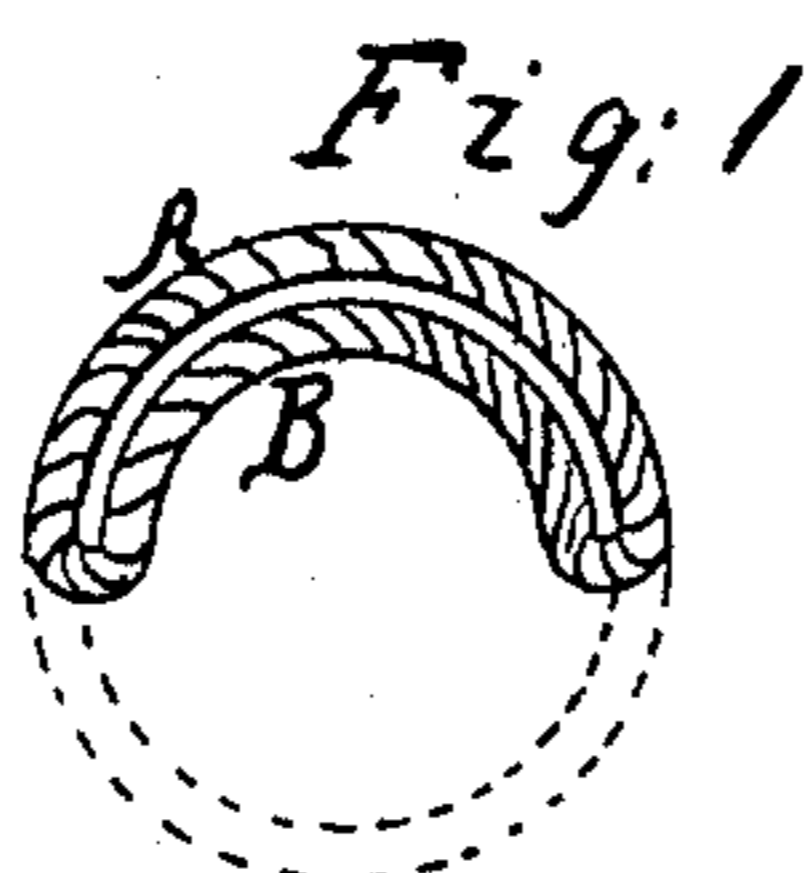


*J. S. Smith Jr.*

*Metal Embroidery*

*N<sup>o</sup> 34907*

*Patented Apr. 8. 1862.*



*Witnesses.*

*John. K. Sheppard*  
*D. W. Stetson*

*Inventor.*

*James S. Smith Jr.*

# UNITED STATES PATENT OFFICE.

JAMES S. SMITH, JR., OF NEW YORK, N. Y.

## IMPROVEMENT IN IMITATION METAL EMBROIDERY.

Specification forming part of Letters Patent No. **34,907**, dated April 8, 1862.

*To all whom it may concern:*

Be it known that I, JAMES S. SMITH, Jr., of New York, in the county and State of New York, have invented a certain Improved Imitation of Gold Embroidery, such as is used for military and naval badges; and I do hereby declare that the following is a full and exact description thereof, which I have prepared with the intention of procuring a patent thereon.

The nature of my invention consists in the use of twisted wires wound in a spiral, the said spiral being collapsed, so as to bring the opposite sides into close proximity, whereby an elastic and flexible article is produced, which may be used for the manufacture of military shoulder-straps, &c.; and is a close imitation of the "gold braid" usually employed for that purpose.

Gold embroidery is very expensive, not only because of the cost of the material employed, but also on account of the labor required to produce it. An attempt has been made to imitate it in the production of shoulder-straps by the use of thin metal struck up in dies; but while this produces but a poor imitation, it is comparatively rigid, and cannot well be bent to fit different shoulders, or be applied with success to other badges.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and the mode of using it by the aid of the accompanying drawings, making part of this specification, and in which—

Figure 1 represents a magnified cross-section of my invention. Fig. 2 is a plan view of a portion of a band, showing the arrangement of the spiral wires; and Fig. 3 is a perspective view of a shoulder-strap or rectangle constructed according to my invention.

I employ fine metal wire which is twisted in two or more strands, like a cord. I place a number of the twisted wires side by side and wind the whole around a mandrel in the form of a close spiral, the pitch of the spiral depending upon the number of wires used. After removing the mandrel the spiral is

placed under a proper press carrying suitable dies and one side pressed inward, as shown in Fig. 1.

To facilitate the flattening or collapsing of the spiral, I can produce it by winding the wire around a flattened or partially flattened mandrel in lieu of a round or cylindrical one. The operation of collapsing involves no particular difficulty which will not be easily surmounted by one skilled in wire-working, and the result is the collapsed spiral represented. In this form the spiral is elastic and flexible, as before; but when bent it does not open to any serious extent, owing to the fact that the two portions A and B cross each other at a considerable angle, as shown in Fig. 2. This collapsed spiral A B may, as a matter of economy in the manufacture, be produced in pieces of great length and afterward cut up to the required lengths and attached by sewing or any other convenient manner, the ends or angles only requiring to be fastened by solder. In forming a shoulder-strap the parts are mitered and soldered together at the corners. The end or any other portions may be made solid by filling with solder, if desired; but the sides should be left flexible, so as to allow of bending to suit differently-formed shoulders, and to conform to the motions of the body.

By distributing one or more wires having a construction different from the rest, in the number which go to make up the spiral, a variegated appearance may be produced. Such effect may also obviously be produced or heightened by burnishing certain portions.

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

The imitation embroidery composed of the collapsed multispiral A B, constructed substantially as herein specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES S. SMITH, JUNR.

Witnesses:

JOHN K. SHEPPARD,  
D. W. STETSON.