

(No Model.)

J. LOGAN.  
BRACELET.

No. 306,936.

Patented Oct. 21, 1884.

Fig:1.

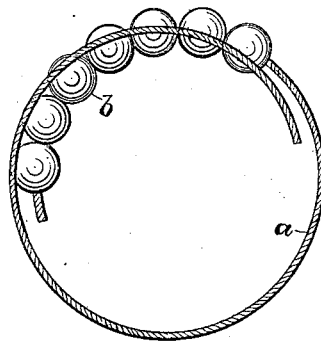
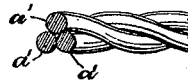


Fig:2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOHN LOGAN, OF WALTHAM, MASSACHUSETTS.

## BRACELET.

SPECIFICATION forming part of Letters Patent No. 306,936, dated October 21, 1884.

Application filed December 13, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LOGAN, of Waltham, county of Middlesex, State of Massachusetts, have invented an Improvement in Bracelets, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention has for its object the production of a novel bracelet composed, essentially, of a multistrand steel spring and beads, balls, or separate short ornaments strung thereon, as will be described.

Springs used in bracelets of this class have heretofore consisted of a single wire, and when made sufficiently stout to properly hold the beads or ornaments and to embrace the wrist firmly it is difficult to make them sufficiently flexible, and they are liable to be broken when expanded to pass over the hand of the wearer. I have discovered by making the springs of a number of strands which together are about equal in sectional area to the single wire heretofore employed, thus producing a multistrand spring, that the flexibility of the spring is greatly increased without impairing its elastic holding power or strength, and such a spring is much more durable and less likely to be broken than the common single-wire spring.

Figure 1 represents a bracelet having a multistrand spring embodying this invention, a portion of the beads, balls, or ornaments to be exhibited being removed; and Fig. 2, a perspective view of a portion of the said spring on a larger scale.

The spring *a*, intended to be covered with and form a support for the beads, balls, or ornaments *b*, is of the usual oval shape, and its

ends overlap one another for a considerable distance, and are left free or disconnected, as shown, so that the bracelet made from it may be expanded to pass over the hand, after which it will contract and assume its normal shape upon the wrist of the wearer by the elasticity of the spring.

In order to give the spring great flexibility without decreasing its elastic force or power to return to and retain its contracted position after having been expanded to pass over the hand, it is made of a number of strands or of fine steel wire twisted together and properly tempered.

A multistrand spring constructed as described is very tough and flexible, so that it is almost impossible to break it in ordinary use, and it is very elastic, so that it is difficult to permanently bend it out of shape.

When a single wire of larger diameter than the single strand *a'* is used, it is very difficult to give it the proper elasticity and strength, as when sufficiently elastic it is likely to be brittle, and when of a lower temper, so as not to be brittle, it is not sufficiently elastic to prevent it from being bent out of shape.

I claim—

As an improved article of manufacture, a bracelet composed of a multistrand steel spring provided with ornaments strung upon it, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN LOGAN.

Witnesses:

JOS. P. LIVERMORE,  
B. J. NOYES.