

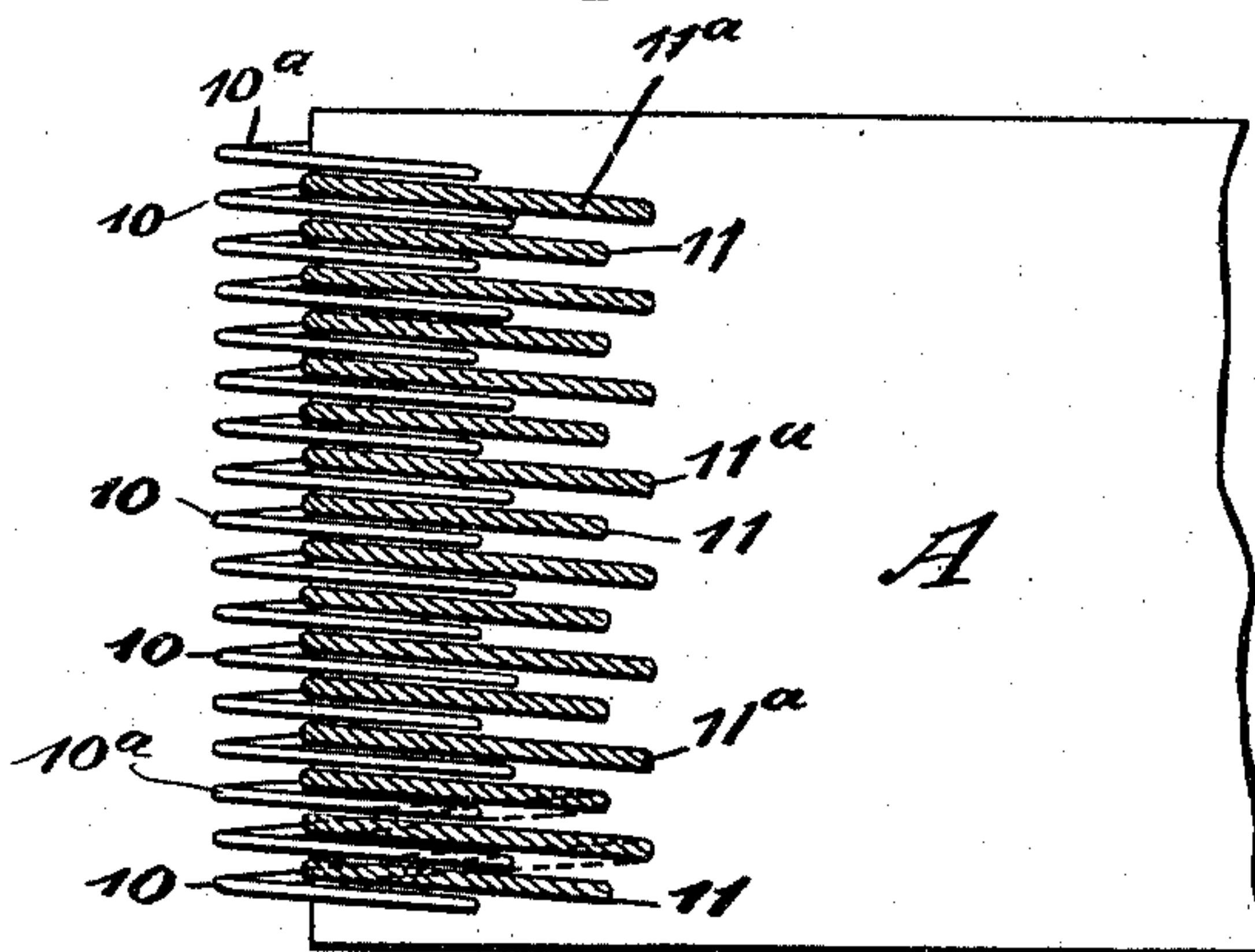
(No Model.)

J. GREGORY.  
WIRE LACING FOR BELTS.

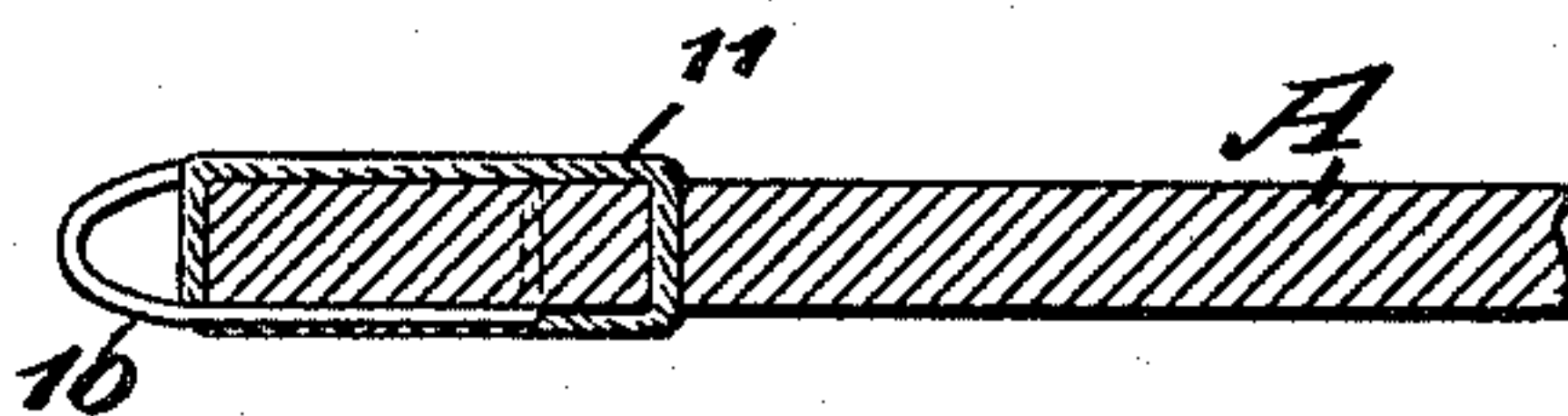
No. 582,054.

Patented May 4, 1897.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

Edward Thorpe  
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# UNITED STATES PATENT OFFICE.

JOHN GREGORY, OF NEWARK, NEW JERSEY.

## WIRE LACING FOR BELTS.

SPECIFICATION forming part of Letters Patent No. 582,054, dated May 4, 1897.

Application filed September 28, 1896. Serial No. 607,135. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GREGORY, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Wire Lacing for Belts, of which the following is a full, clear, and exact description.

The object of my invention is to provide a wire lacing for belts especially adapted for application to woven belts, the object of the invention being to provide a lacing of the foregoing description which will not draw from one weft of the belt, but wherein the strain on the belt incident to the application of a wire lacing will be distributed over a larger area of the belt than ordinarily, and particularly where the wire lacing extends beyond the ends of the belt.

A further object of the invention is to provide a binding for the ends of the belt, whether woven or of other description, applied to the belt in like manner as the wire lacing and serving to effectually prevent any unraveling at the ends of the belt, and serving also to materially strengthen the belt at such points.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a plan view of an end portion of a belt, illustrating the application of the lacing and the binding thereto; and Fig. 2 is a longitudinal section through an end portion of the belt, illustrating the position of the binding and the lacing with reference to the belt.

In carrying out the invention the belt A may be of any desired construction, but, as heretofore stated, the belt to which the device is particularly adapted is a belt of a woven material.

The wire lacing for the belt consists of a series of strands extending beyond the ends of the belt, each end lacing being formed of a continuous piece of wire 10 of a suitable gage, and the wire is so passed through the belt and carried over its ends as to give a screw formation to the lacing at each end.

In order that the lacing shall not draw from

a single weft and thus render it possible under undue strain for the lacing to tear off the belt at its end portions, the strands of the lacing are alternately of different lengths, as shown at 10 and 10<sup>a</sup>, whereby the longer strands will engage with a weft some distance removed from the weft with which the shorter strands would be brought in engagement.

In order to reinforce the belt at its ends, and, furthermore, in order that the wire lacing shall not be liable to slip or become heated, and also in order to reduce the wear on the wire to a minimum, a binding is provided for the ends of the belt. This binding may be of stout twine properly waxed or otherwise reinforced, or it may be made from a strip of rawhide, leather, or an equivalent material, or from a thread or a combination of threads of any description.

The reinforcing threads or strips are passed through the belt in like manner as the wire lacings, being located between the members of the lacings, and the binding threads or strips are brought tightly to an engagement with and extend across the ends of the belt, and the members of the binding are preferably alternately short and long where they engage with the inner portion of the belt, as shown at 11 and 11<sup>a</sup>, so that this binding may likewise engage with different weft-threads in like manner as the metal lacing.

It may here be remarked that the binding will fill up the space between the members of the metal lacing in such manner that the binding may engage with the pulley as well as with the lacing, and therefore prevent the metal lacing from slipping on the pulley and by increased friction becoming heated, and consequently, as stated, the lifetime of the metal lacing will be extended, as will likewise the lifetime of the belt at that portion where the lacing is applied.

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

1. A metal lacing for belts, consisting of a continuous piece of wire formed in alternate short and long loops or strands, the said wire being threaded through the belt a predetermined distance from an end and projecting beyond the end of the belt, the arrangement of the strands of the lacing corresponding to



the thread of a screw and the longer strands engaging the belt at a greater distance from its end than the shorter strands, the portion of the wire projecting beyond the end of the  
5 belt forming a series of alined eyes or loops, as and for the purpose specified.

2. The combination with a belt, of a metal lacing consisting of a wire passed through the belt at an end portion thereof and carried  
10 beyond the end forming a series of alined eyes, the arrangement of the strands of the lacing being that of the thread of a screw, and a binding of corresponding form secured to the belt and carried between the members  
15 of the wire lacing and over to an engagement with the ends of the belt, as and for the purpose set forth.

3. A reinforcing-binding for belts, consisting of a lacing passed through the belt a predetermined distance from an end thereof, the

members or strands of the lacing crossing and engaging with the end, the strands or members of the lacing being of different lengths, as and for the purpose specified.

4. The combination with a belt, of a wire  
25 lacing located at the end and extending beyond the end, the lacing being of spiral formation, and a binding consisting of a lacing passed through the belt a predetermined distance from the end, the members or strands  
30 of the binding being carried between the members of the wire lacing and over to an engagement with the end of the belt, the strands or members of the lacing being of different lengths, as and for the purpose specified.

JOHN GREGORY.

Witnesses:

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