

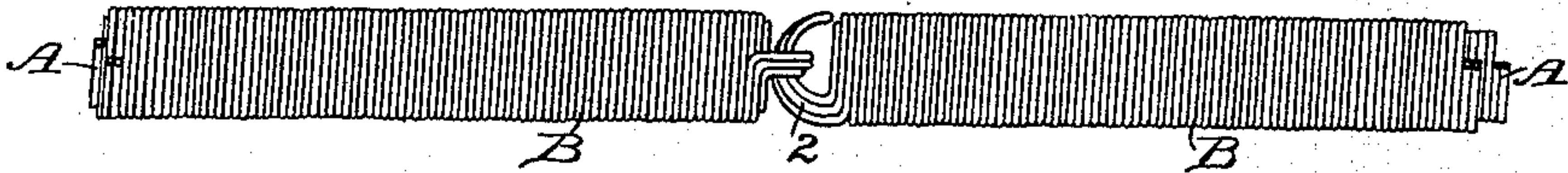
(No Model.)

G. B. SMITH.  
MACHINE BELTING.

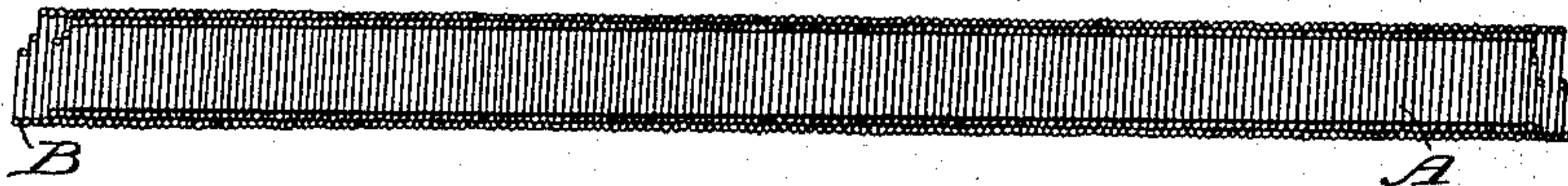
No. 413,576.

Patented Oct. 22, 1889.

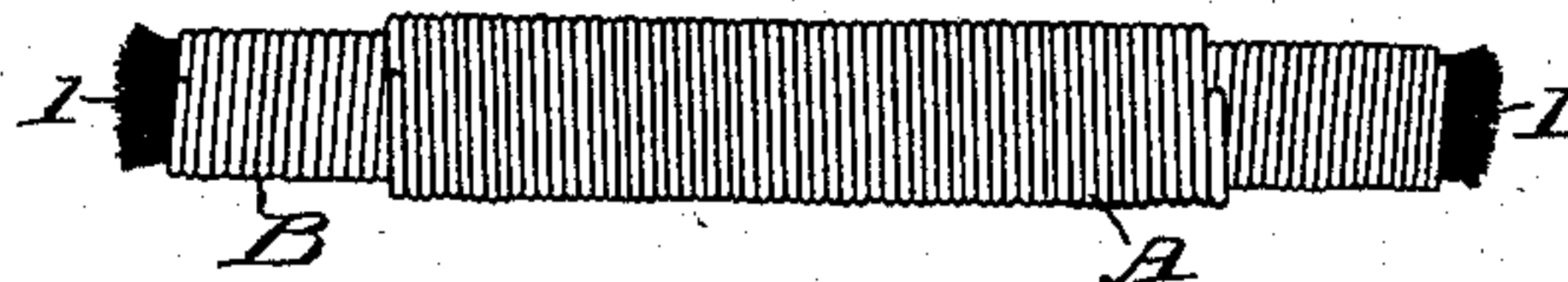
*Fig. 1.*



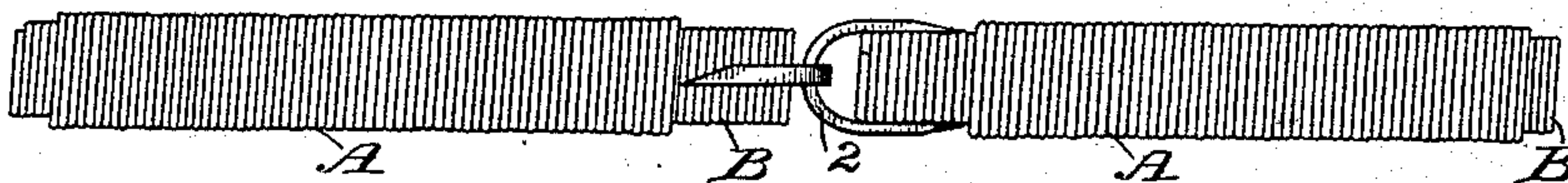
*Fig. 2.*



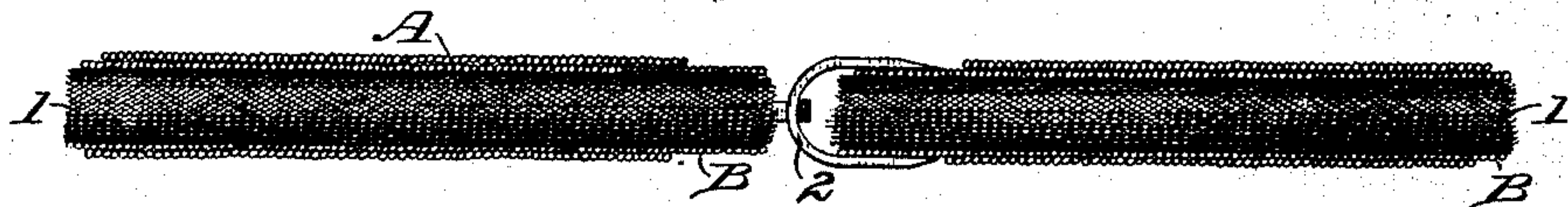
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses

*Wm. Meusser.*  
*B. H. Sommers.*

Inventor

*Gary B. Smith.*

By his Attorney

*A. G. Wyman*



# UNITED STATES PATENT OFFICE.

GARY B. SMITH, OF KANSAS CITY, MISSOURI.

## MACHINE-BELTING.

SPECIFICATION forming part of Letters Patent No. 413,576, dated October 22, 1889.

Application filed April 6, 1889. Serial No. 306,170. (No model.)

*To all whom it may concern:*

Be it known that I, GARY B. SMITH, a citizen of the United States of America, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Machine-Belting, of which the following is a specification.

My invention has relation to improvements in machine-belting of that class styled "metallic belting," and the object is to make an improved metal belting whereby will be removed the objectionable characteristics of those forming the existing art, and to provide a belting of the kind named which will serve all the purposes and possess the qualities of the more pliable belting made from other materials.

Heretofore metallic belting has been made of various arrangement of coiled wire, one consisting in the simplest form of a single wire coiled, others of various modifications, some having a central sustaining cord or core to limit the stretch of the loosely-surrounding coil. Another is constructed with a central core, a coil, and an outer elastic covering. These several constructions have too great tensibility, which renders them almost useless in practice; hence the primary object of my invention is to construct a metallic belting which will possess sufficient rigidity to make a strong pull and yet have the requisite tensibility to respond to all the strain that may be put upon it.

To this end my invention consists, primarily, in a double helical coil of wire.

It also consists in the particular construction and combination of parts, as will be described, and specially pointed out in the claims.

I have fully illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a view of the belting in outward appearance. Fig. 2 is a central sectional view of the same without a core. Fig. 3 is a view showing one arrangement of the construction. Fig. 4 is a view showing the means for connecting the ends of the belting. Fig. 5 is a view in central section showing the flexible core.

A designates the inner coil of wire, which has the coils laid normally in contact, substantially as shown.

B designates the outer coil of wire. This may consist of a single wire laid tight in its coils on the inner wire and tight in the relative position of its own coils, and this form of construction will be found sufficient to meet the purposes of light drafts; but when a heavier construction and greater tensive resistance are required I make one coil of wire of two wires carried into a coil side by side, substantially as shown in the drawings. The inner coil may be wrapped tightly about a flexible material, (designated by 1,) which, having less tensibility than the wires, tends to limit the extension of the coils. It is not absolutely essential that the inner and outer coils of the belting shall be all laid in the same direction, but the outer layer may run reversely from those of the inner; nor is it essential that the double-strand coil be on the outside, as it may form the central or inner coil and be covered by a coil of single wire.

To fasten the ends of the wires of the belting together, the outer coil of wire is stopped short of the end of the central coil and a staple is adjusted over the projecting ends and the arms of the staple soldered to the belting, or the ends of the wires are formed into hooks 2 and these connected to hold the belting in one continuous strand.

Having thus fully explained and described my invention, so as to distinguish it from other existing older constructions, I proceed to particularly point out and distinctly claim the elements or parts I claim as my invention, as follows:

1. As an improved article of manufacture, the herein-described metallic belting, consisting of an inner helical-coiled wire and an outer helical-coiled wire wrapped on the inner coil, substantially as described.

2. The belting herein described, consisting of a core of flexible material, a helical-coiled wire on the core, and an outer layer of coiled wire over the inner coil, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two attesting witnesses.

GARY B. SMITH.

Attest:

CYRUS CLOTHIER,  
J. T. DEW.