

(No Model.)

L. BINNS.  
ENDLESS BAND.

No. 592,686.

Patented Oct. 26, 1897.

FIG.1.

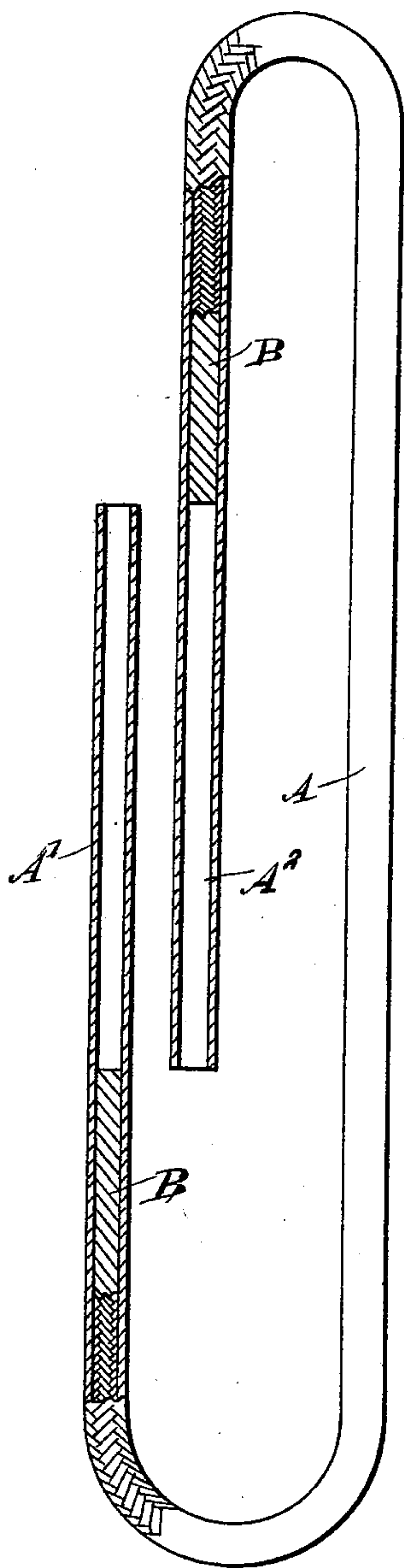


FIG.2.

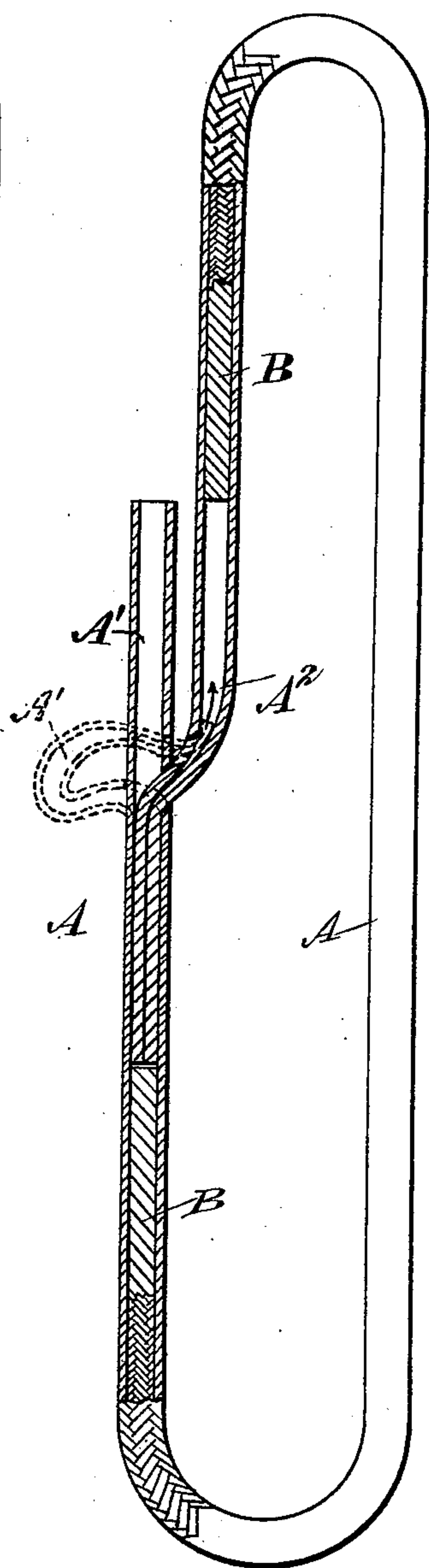
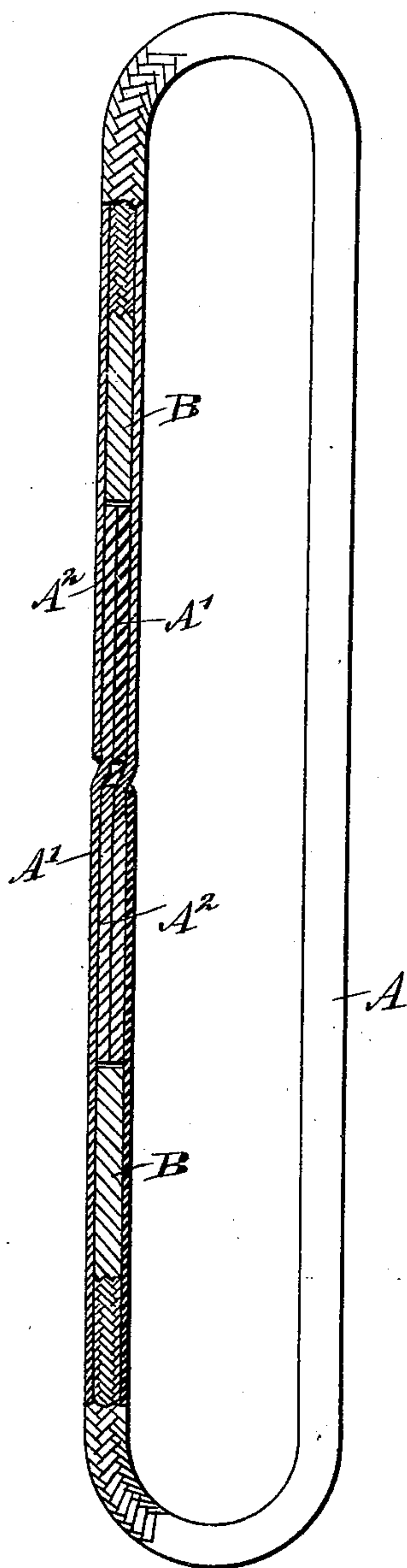


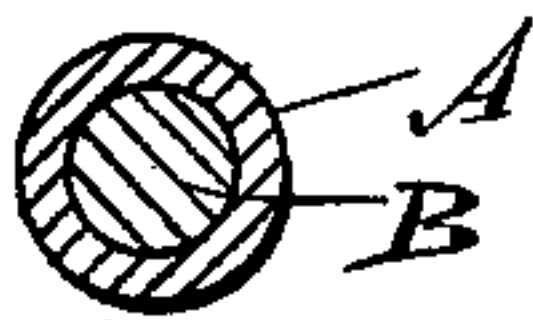
FIG.3.



WITNESSES:

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FIG.4.



INVENTOR

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# UNITED STATES PATENT OFFICE.

LEEDHAM BINNS, OF PHILADELPHIA, PENNSYLVANIA.

## ENDLESS BAND.

SPECIFICATION forming part of Letters Patent No. 592,686, dated October 26, 1897.

Application filed July 30, 1896. Serial No. 601,016. (No model.)

*To all whom it may concern:*

Be it known that I, LEEDHAM BINNS, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Endless Band, of which the following is a full, clear, and exact description.

The invention relates to endless bands or cords such as shown and described in the Letters Patent of the United States, No. 330,087, granted to me November 10, 1885.

The object of the present invention is to provide a new and improved endless band designed for use as a driving band or belt for mill-spindles and other purposes, the band being very durable and strong in construction and with its terminal portions united in such a manner as to render the band of uniform or approximately uniform thickness throughout.

The invention consists principally of a plaited tubular band containing a filling terminating at its ends a suitable distance from the ends of the band to permit of interlacing the said ends.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then 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 all the figures.

Figure 1 is a side elevation of the improvement with parts in section and previous to interlacing the ends of the band. Fig. 2 is a similar view of the same with the ends partly interlaced. Fig. 3 is a side elevation of the finished article with parts in section, and Fig. 4 is an enlarged cross-section of the same.

The improved endless band consists of a plaited tubular band A, containing a filling B, made of a plaited cylindrical band, cord, or other article or material and terminating at its ends suitable distances from the ends A' A<sup>2</sup> of the band A, as plainly indicated in Figs. 1, 2, and 3, so that the said ends A' and A<sup>2</sup> can be readily united with each other without interfering with the filling B.

Now in order to unite the ends A' A<sup>2</sup>, I preferably pass one-half of the unfilled end A<sup>2</sup>, by means of a needle or like instrument, through an opening in the side of the other end A', at or near the middle thereof, to fill the inner half of the said end A'. The outer

half of this end A' is now passed by the needle through an opening in the side of the end A<sup>2</sup>, at or near the middle thereof, to fill the inner half of the end A<sup>2</sup> with the outer half of the end A', as is best shown in Fig. 2. This operation is the same as that described in the patent above referred to. By thus inserting each of the tubular ends bodily and longitudinally in reverse directions to each other and within that portion adjacent to the other end part of one end forms a sheathing for the other end and the remaining portion forms a filling for the remaining portion of the other end. The fillings of the ends abut against the ends of the filling B. As the fillings formed by the extreme portions of the ends A' A<sup>2</sup> are the same in amount as that of the filling B, it is evident that the band produced is of a uniform or approximately uniform thickness throughout. (See Fig. 3.)

It is evident that by having the band of a uniform or approximately uniform thickness, especially at the joint, the band is not liable to break when in use and lasts much longer than a band with a thickened joint.

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

1. An endless band, comprising a plaited tubular band, and a filling terminating at its ends a suitable distance from the ends of the band, to permit of uniting the said ends of the bands with each other without interfering with the said filling, substantially as shown and described.

2. An endless band, comprising a plaited tubular band, and a filling terminating at its ends a suitable distance from the ends of the band, to permit of interlacing the unfilled ends of the band, substantially as shown and described.

3. An endless band, comprising a plaited tubular band, and a filling terminating at its ends a suitable distance from the ends of the band, to permit of uniting the ends of the band by inserting each of the tubular ends bodily and longitudinally in reverse directions to each other and within that portion adjacent to the other end, substantially as shown and described.

LEEDHAM BINNS.

Witnesses:

THEO. G. HOSTER,  
JNO. M. RITTER.