

(No Model.)

A. E. BRIGGS.
ELASTIC PULLEY BAND.

No. 254,089.

Patented Feb. 21, 1882.

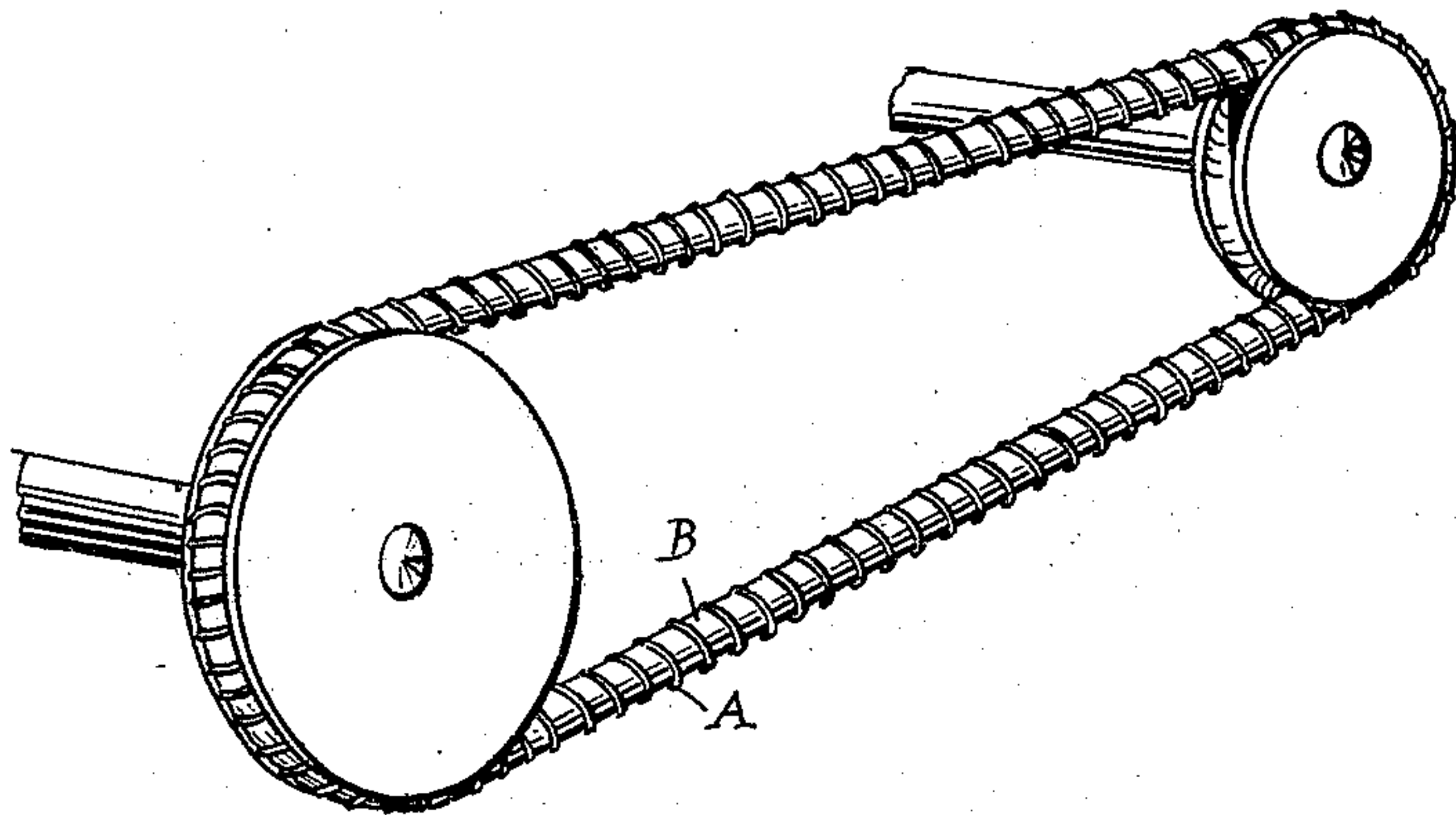


Fig. 1.

Fig. 2.

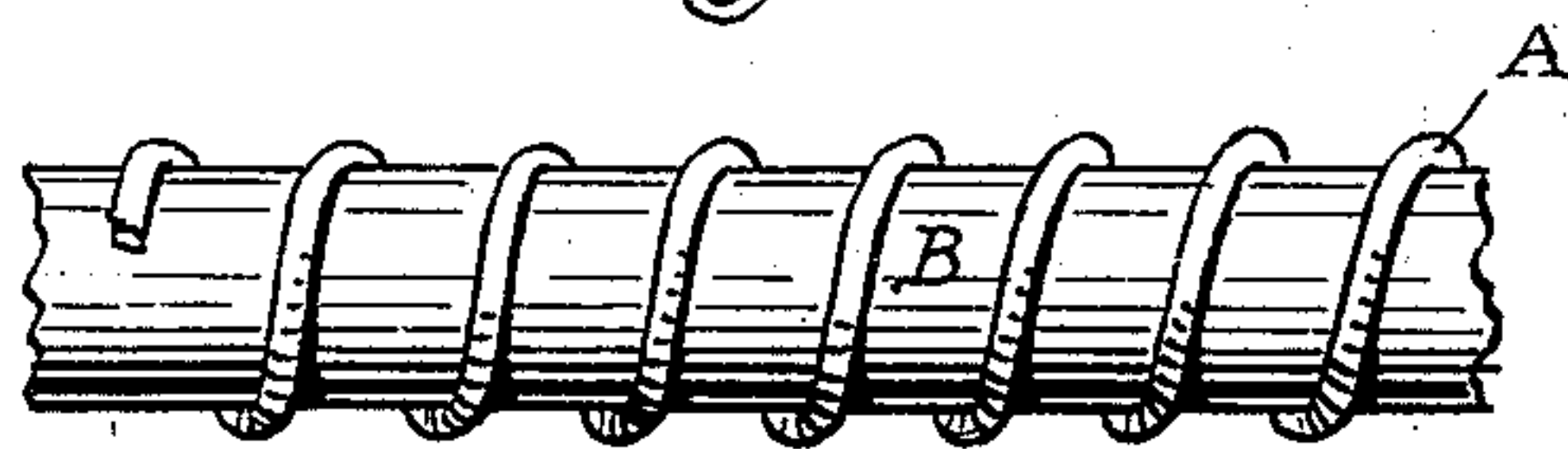


Fig. 3.

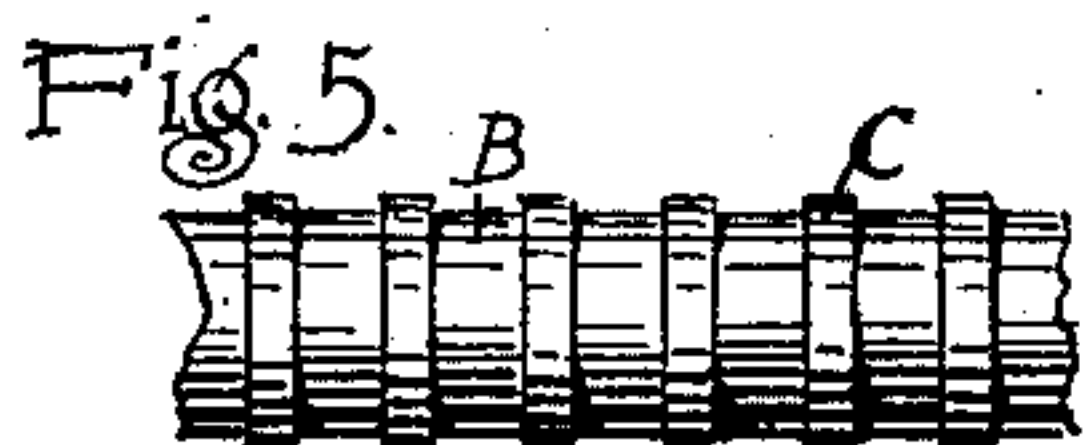
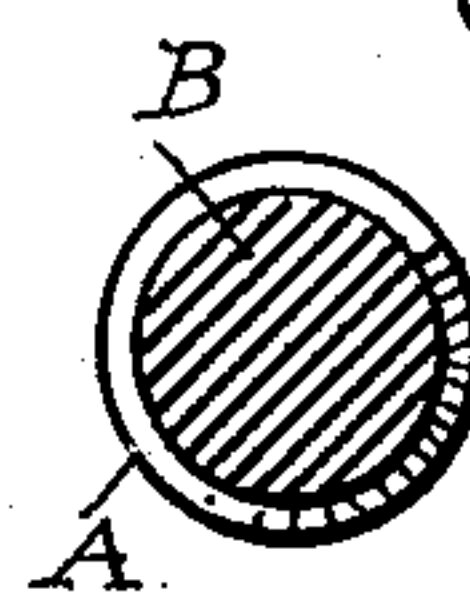


Fig. 6.

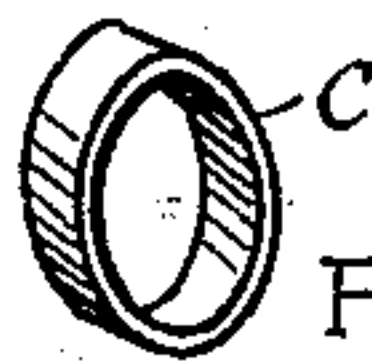


Fig. 7.

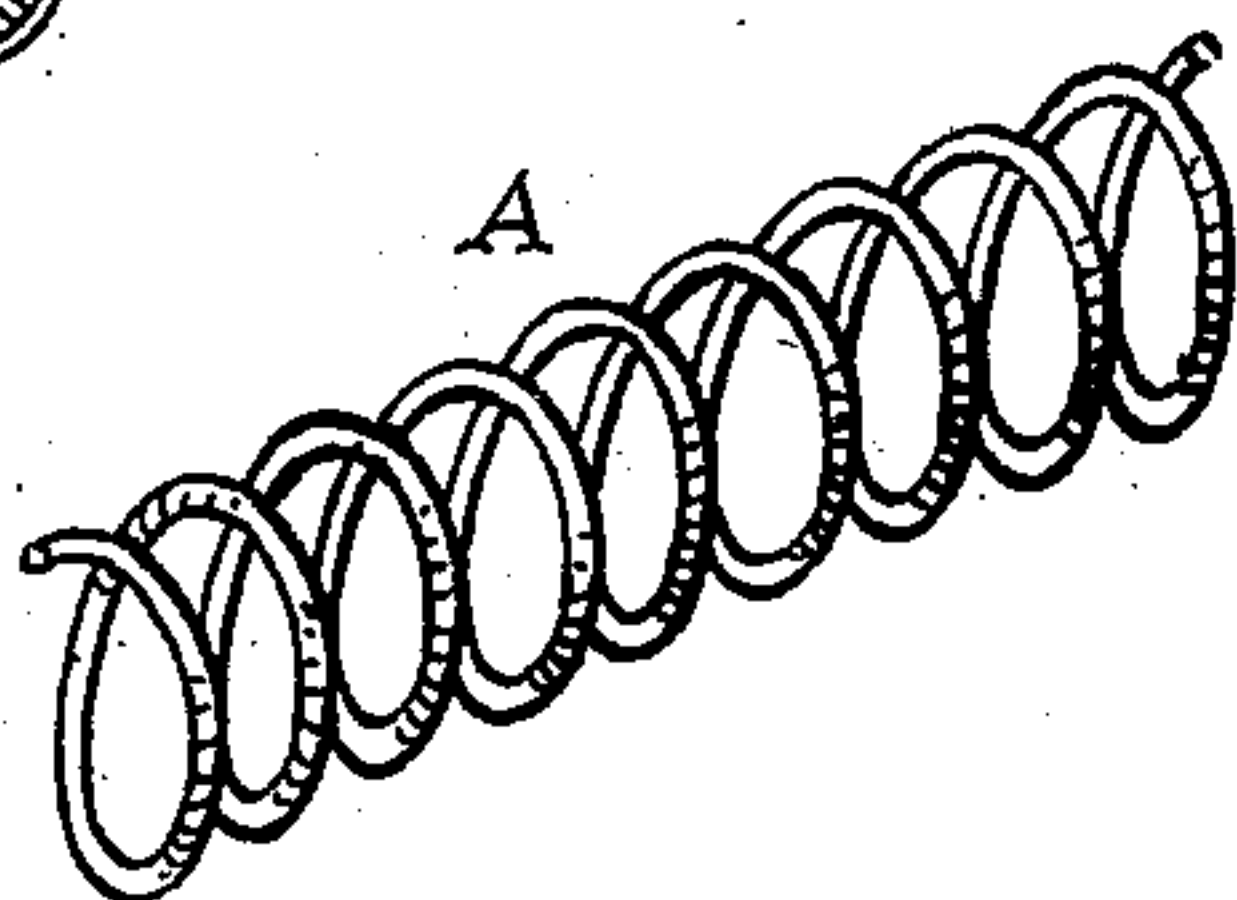


Fig. 4.

Witnesses:

Lepta. D. Garrard
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Inventor:

Arthur E. Briggs

UNITED STATES PATENT OFFICE.

ARTHUR E. BRIGGS, OF BOND HILL, ASSIGNOR TO POST & CO., OF CINCINNATI, OHIO.

ELASTIC PULLEY-BAND.

SPECIFICATION forming part of Letters Patent No. 254,089, dated February 21, 1882.

Application filed December 5, 1881. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR E. BRIGGS, a resident of Bond Hill, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Elastic Pulley-Bands; and I do declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings, wherein similar letters denote corresponding parts.

Figure 1 is a general perspective view of my elastic band in position with pulleys. Fig. 2 is an elevation of my invention, where A is the wire spiral and B the inclosed rubber band. Fig. 3 is a transverse section of elastic band. A is the wire spiral and B the inclosed rubber band. Fig. 4 is a perspective view of wire wrapper A. Fig. 5 is an elevation of my invention, where C is the metal ring and B the inclosed elastic band. Fig. 6 is a transverse section of the elastic pulley-band, where C is the ring and B the elastic inclosed band. Fig. 7 is a perspective view of ring C.

My invention is an improvement in elastic pulley-bands, especially when such bands are used to actuate the cylinders of magneto-machines. The objection to the ordinary pulley-bands, in which a non-metallic elastic material is used, is that the wear of the parts incident to friction soon render them inoperative by abrading the band and by deposit of abraded parts in the grooves of the pulleys. Owing to this tendency to wear it has been found that the grooves in the pulley must be semicircular. If the groove could be V-shaped, the efficiency of the band would be much greater, as the slip would be much less. My invention avoids these objections, and may be used with a V-pulley; and it consists—

First. In wrapping an elastic band with a metal wire or ribbon, so that the inside diameter of the metal spiral shall be equal to or somewhat greater than the diameter of the elastic band when in use—that is, stretched on the pulley. My invention is not limited to the use of rubber as affording the requisite elasticity, but embraces all elastic bands—as, for instance, a leather band—whose ends are joined by an elastic connection.

Second. In placing around an elastic band metal rings whose inside diameter is not less than the diameter of the inclosed band when in use—that is, stretched on the pulleys. I disclaim the use of hard or spring wire or metal as an inclosing spiral when such spiral has any efficiency as a pulley-band. The only function of the metal spiral and ring in my invention is to protect the inclosed band. In manufacturing my elastic pulley-band I make the inclosing spiral of such length that it is inoperative by itself to actuate a pulley, and use annealed or hard metal wire or ribbon merely because soft metal would not retain its shape under usual pressure.

What I claim as new, and desire to secure by Letters Patent as a new article of manufacture, is as follows:

As an improved article of manufacture, a pulley-band consisting of an elastic cord surrounded with metallic rings or spirals, substantially as shown, and for the purpose set forth.

The foregoing specification of my invention signed by me this 26th day of November, A. D. 1881.

ARTHUR E. BRIGGS.

Witnesses:

JEPHTHA D. GARRARD,
E. H. BAKER.