

No. 826,739.

PATENTED JULY 24, 1906.

J. S. PATTERSON.

DECKLE STRAP.

APPLICATION FILED FEB. 20, 1905.

FIG. 1.

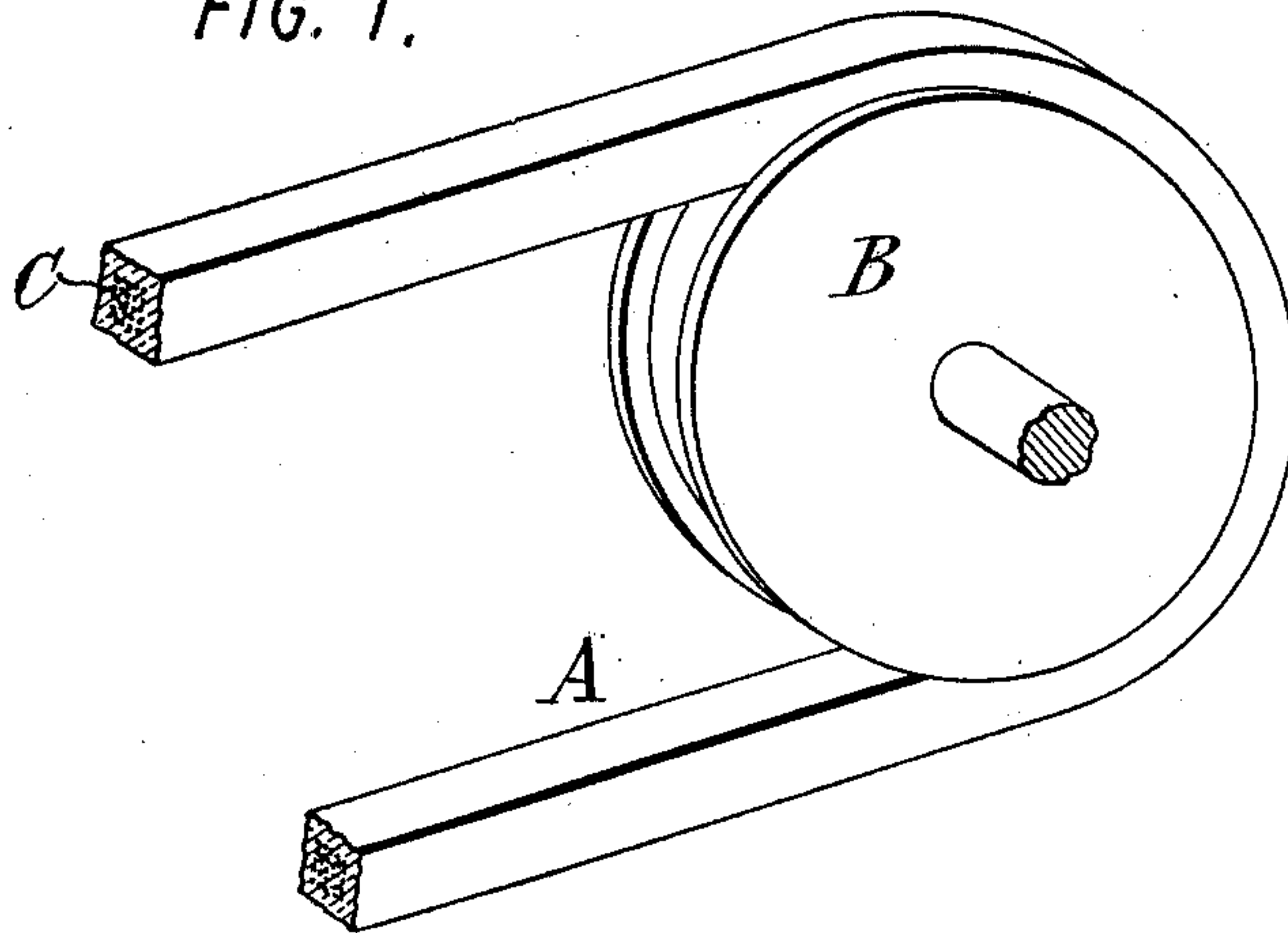


FIG. 2.

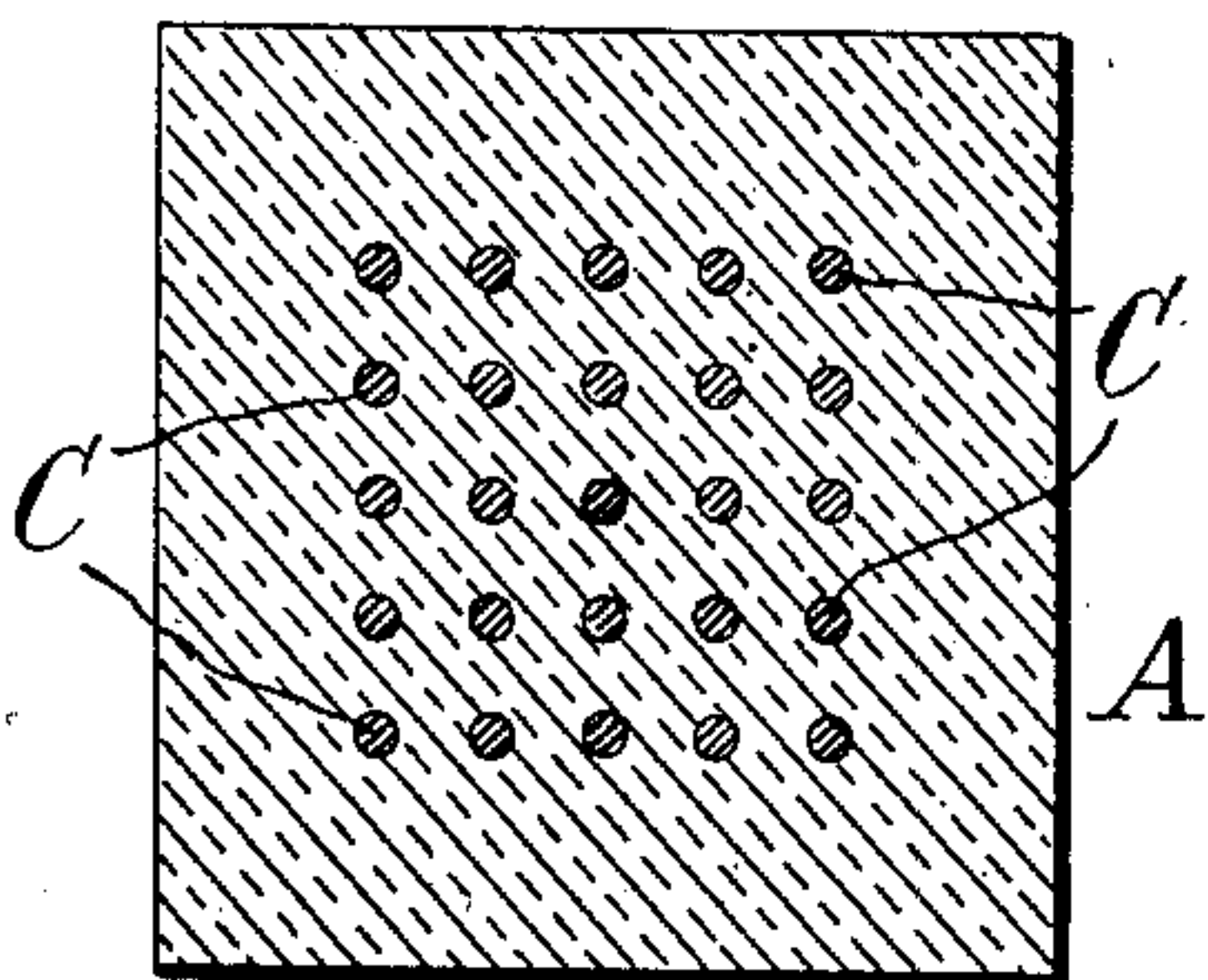
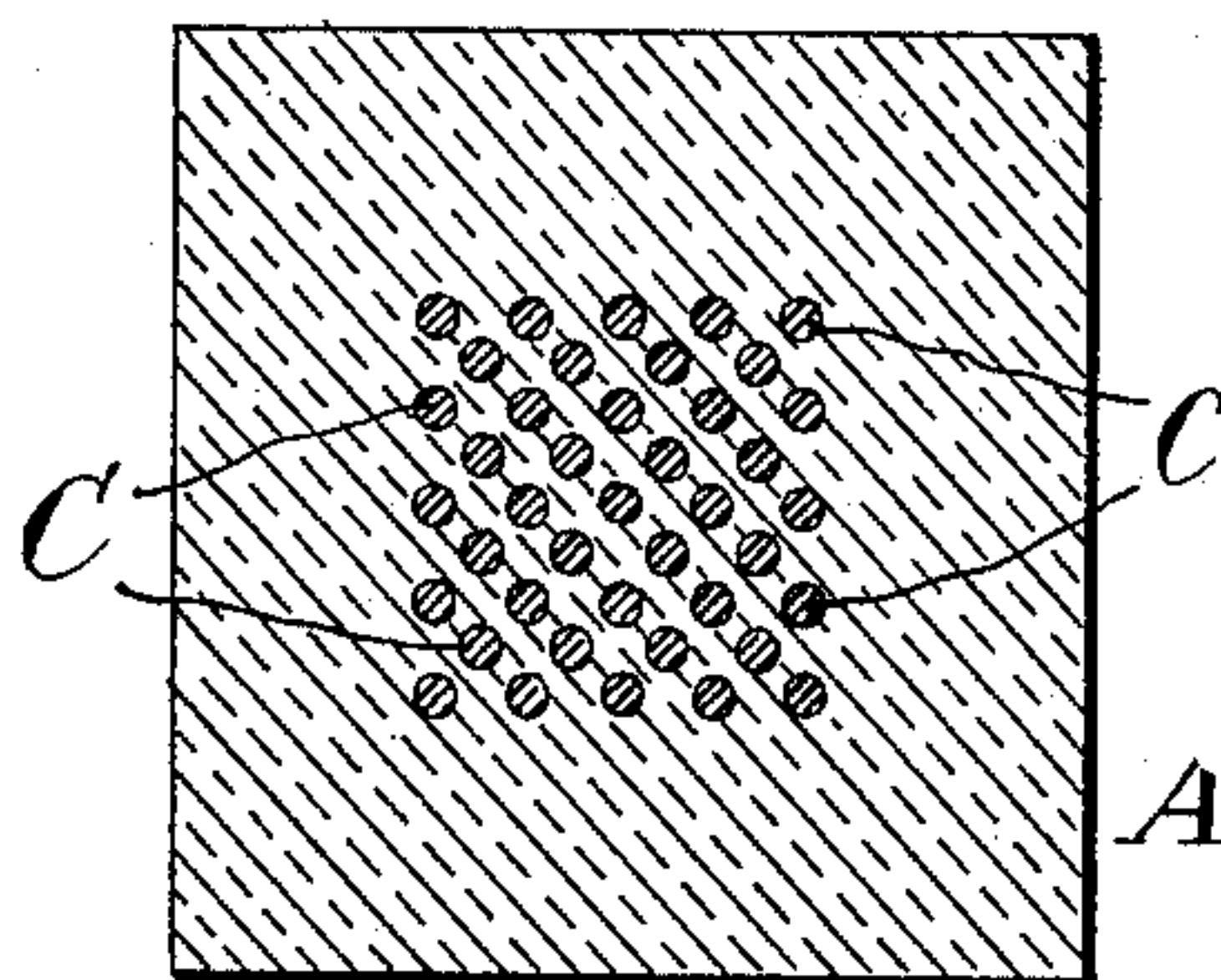


FIG. 3.



WITNESSES:

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DECKLE-STRAP.

No. 826,739.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed February 20, 1905. Serial No. 246,634.

To all whom it may concern:

Be it known that I, JOHN S. PATTERSON, a citizen of the United States, residing at Revere, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Deckle-Straps, of which the following is a specification.

This invention relates to the construction of deckle-straps used in paper-making machines to curb the pulp where it passes onto the screen or wire web and which determine the width of the web of paper.

Deckle-straps are commonly made of an endless band of flexible rubber, square in cross-section, and having a central strengthening-core built up of layers of fibers or textile fabric. Where the strap passes around the carrying wheels or pulleys, these layers of fabric should lie parallel to the axis of the wheels in order that the strap may flex properly. Owing to its being square, however, the strap is liable to be wrongly applied on the pulleys, so that the layers of the core are flexed edgewise by reason of their occupying a plane perpendicular to the axis of the wheels, and this flexure puckers and strains the layers of fabric and injures the core. It also has been proposed to provide a single circular or tubular core of spirally-coiled fabric; but such core, as well as the layer core heretofore used, has the disadvantage of being undesirably stiff.

My invention aims to provide an improved construction of deckle-strap of greater flexibility than those heretofore made which may be flexed equally well in either direction, so that no care need be exercised as to which side of the strap is placed against the pulleys.

According to my invention I provide a plurality of parallel cores embedded in the rubber of the strap and separated from one another so as to afford substantially equal flexibility in either direction. The cores are preferably substantially round cords of textile material and are distributed equally and symmetrically within the rubber.

Figure 1 of the accompanying drawings is a perspective view of a portion of a deckle-strap, showing its flexure around the supporting-pulley. Figs. 2 and 3 are cross-sections of different constructions of deckle-strap embodying my invention.

The deckle-strap A is best made square in cross-section, so that it may be applied equally well with either of its sides against the supporting-pulley B. Some departure from an exact square is, however, admissible. Extending longitudinally within the rubber are multiple cores C C, arranged parallel with one another and separated sufficiently to form an effective cushion of the yielding or elastic rubber between them. These cores are preferably round cores spun in the usual way of textile fibers. The cores or cords may be arranged in rows parallel with the rectangular lines of the strap, as shown in Fig. 2, or in rows alternating or diagonal rows, as in Fig. 3, or any other suitable arrangement may be adopted, provided only that the arrangement of the cores be such in connection with the shape and character of the cores themselves as to render the strap equally flexible, or substantially so, in either direction. The construction shown in Fig. 2 is deemed the preferable one.

The construction may be greatly varied without departing from the essential features of my invention. Thus the cores may be arranged more or less closely together, or the cores themselves may be variously shaped and constructed of various materials having sufficient strength and flexibility to adapt them to the purpose.

What I claim is—

1. A deckle-strap consisting of a band of flexible rubber having embedded in it a plurality of parallel cords of textile material, separated by the rubber and arranged to afford substantially equal flexibility in either direction.

2. A deckle-strap consisting of a band of flexible rubber having embedded in it a plurality of rows of textile cords separated from each other symmetrically to afford substantially equal flexibility in either direction.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN S. PATTERSON.

Witnesses:

ARTHUR C. FRASER.
FRED WHITE.