J. SHARP.
Machine-Belting.

No. 219,531. Patented Sept. 9, 1879.

Fig. 1

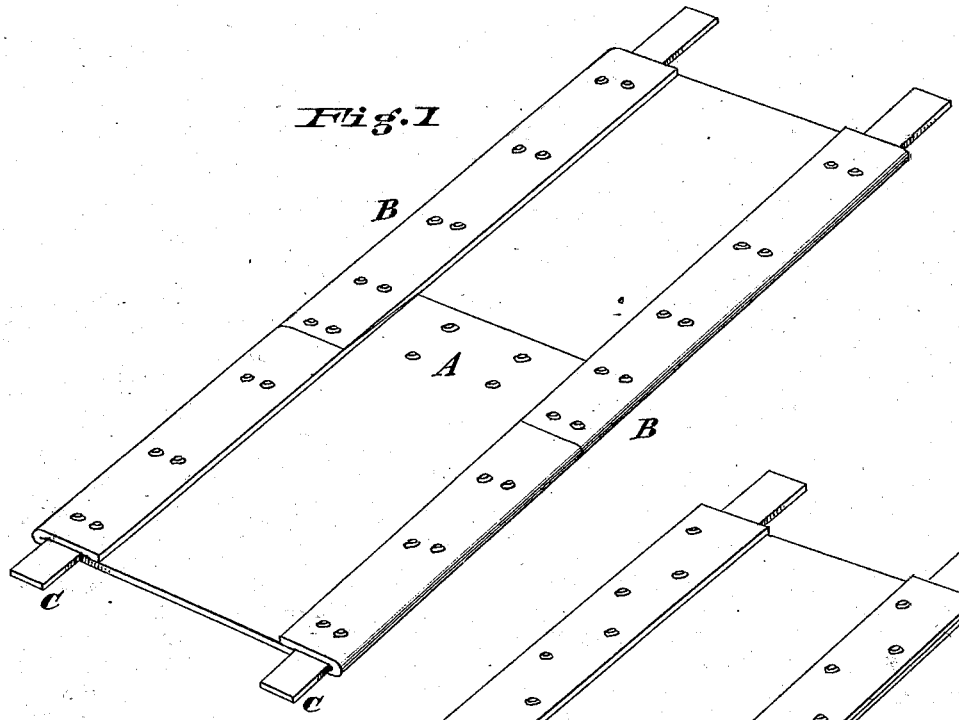
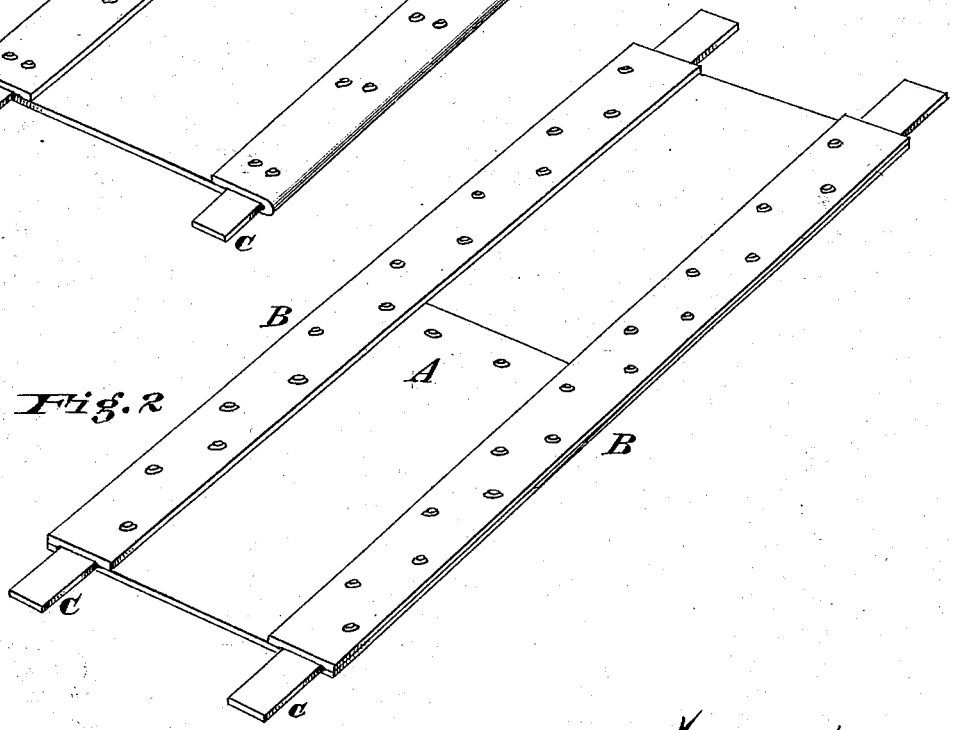


Fig. 2



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JOSEPH SHARP, OF CINCINNATI, OHIO.

IMPROVEMENT IN MACHINE-BELTING.

Specification forming part of Letters Patent No. **219,531**, dated September 9, 1879; application filed May 31, 1879.

To all whom it may concern:

Be it known that I, JOSEPH SHARP, of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Machine-Belting, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a portion of a belt constructed according to my invention, and Fig. 2 represents a similar view of a modification.

The object of this invention is to provide a belt for driving machinery in which the edges are greatly strengthened, while the longitudinal central portion is pliable and free to conform itself to pulleys having convex peripheries in cross-section, though it is applicable to pulleys of an ordinary construction having flat peripheries in cross-section.

To this end my invention consists in a belt of any suitable fibrous or textile material, having each of its longitudinal parallel edges provided with a band of resilient material—such as flexible metal—extending the entire length of the belting, upon and over which band is secured a narrow strip of fibrous or textile material, just sufficiently wide to cover and slightly overlap the metallic band, whereby the edges of the belt are greatly strengthened and the fibrous or textile material relieved of tensile strain, while the entire longitudinal central portion of the belt is pliable and free to conform itself to the convex-shaped periphery of a pulley, said pliable central portion being adapted to closely fit and hug the periphery of the pulley, thereby creating great friction, all of which will be fully hereinafter described.

In the drawings, the letter A indicates the body of the belt, which is constructed of any suitable fibrous or textile material—such as canvas or other woven fabric, felting, paper fabric, &c.—and B indicates the longitudinal strip of material similar to the body of the belt. C indicates the separate bands of resilient material—such as flexible metal, preferably steel or some very strong, but elastic, wood. These bands are arranged longitudinally along the opposite edges of the belt A, extending the entire length of the same, and the fibrous or textile strips B are then placed over said bands C, being of just sufficient width to entirely cover and slightly overlap the edges of the band, the said band and strip being then confined and firmly secured in place by means of suitable rivets or otherwise.

The belt A is preferably made of suitable lengths, the contiguous ends of which are provided with acute diagonal edges, which are cemented together, and the metallic or other strong resilient bands relieve such joints of all tensile strain.

It will be observed that as thus constructed the entire central part of the belt, or that portion between the edge strips and bands, is very pliable and free to conform itself to a pulley having a convex periphery in cross-section, and such pliable portion of the belt will closely fit and hug the pulley, thereby creating a great frictional contact, which is very desirable; and, further, the bands of resilient material relieve the weaker material of the belt from all tensile strain, while not impairing the very desirable qualities of a fibrous or textile material—such as pliability, adaptability to conform to the concaved peripheries of pulleys, and the great frictional contact between such belting and the pulley.

In Fig. 1 the longitudinal strip of fibrous or textile material which covers the resilient band is formed by turning over or overlapping a portion of the belt A upon itself, so as to cover the band, while in Fig. 2 the said fibrous or textile strip is formed of a separate and independent strip.

What I claim is—

A belt composed of a single thickness of fibrous or textile material, having its longitudinal edges strengthened by separate metallic bands, or their equivalents, which are covered by a strip of fibrous or textile material, either by turning over the edges of the belt upon itself or by separate strips of such fabric, the said metallic band and fibrous or textile strips being suitably connected and secured, as described, whereby the longitudinal central portion of the belt is left of a single thickness, free, and pliable.

In testimony whereof I have hereunto set my hand this 27th day of May, 1879.

JOSEPH SHARP.

Witnesses:
L. M. HOSEA,
E. KELIHAN.