

(No Model.)

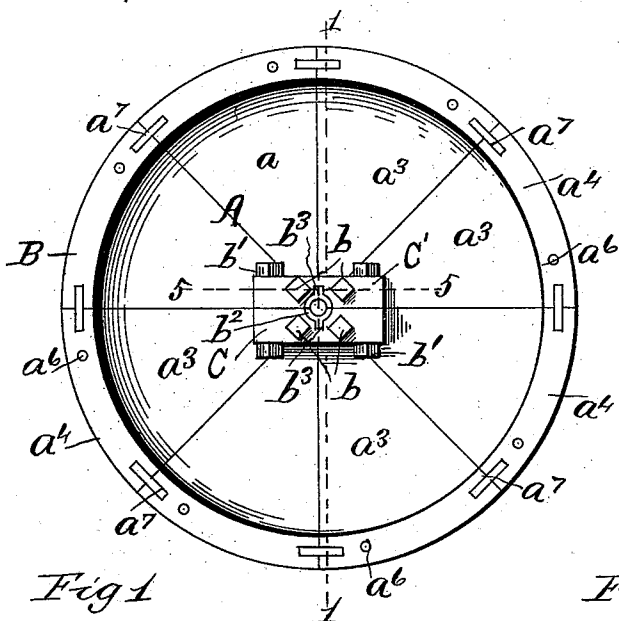
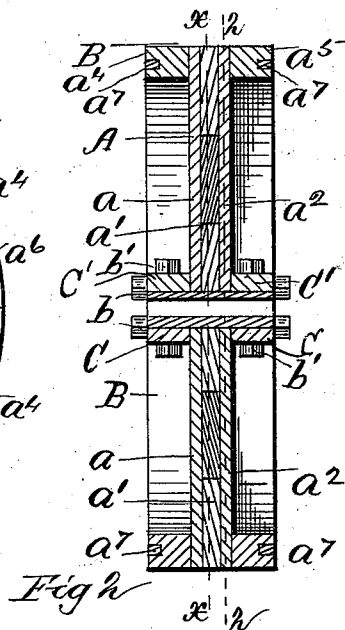
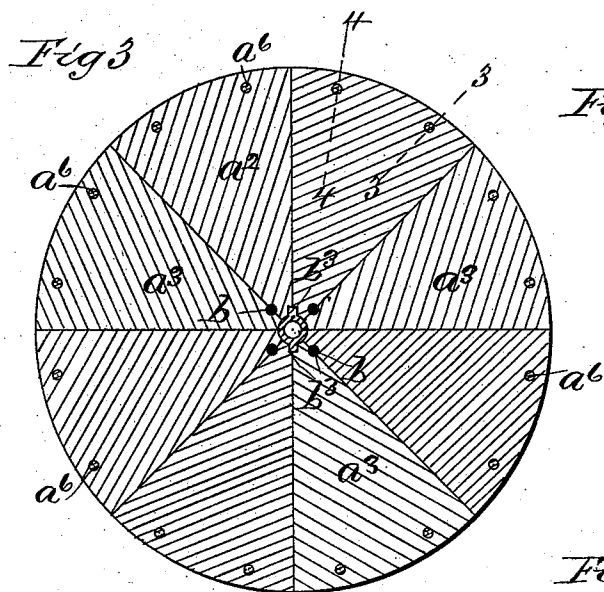
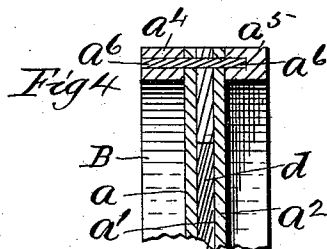
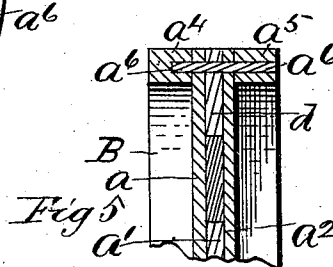
2 Sheets—Sheet 1..

A. KEHLER.

SPLIT BAND PULLEY.

No. 400,574.

Patented Apr. 2, 1889.



Witnesses,

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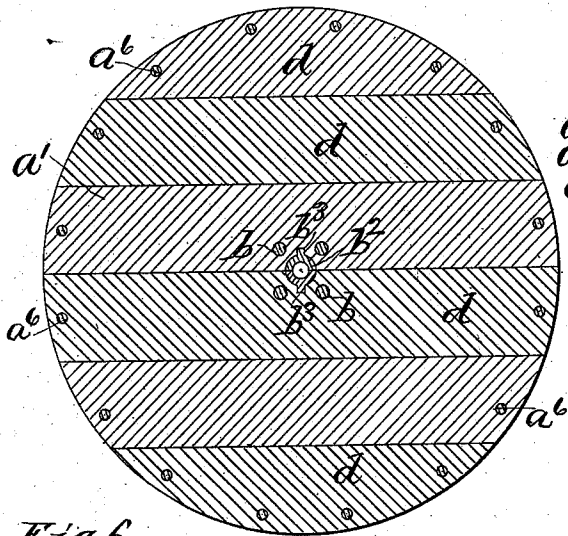


Fig 6

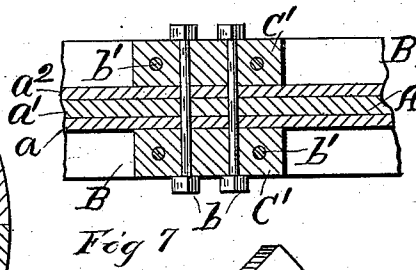


Fig 7

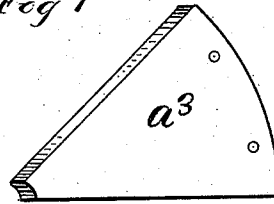


Fig 8

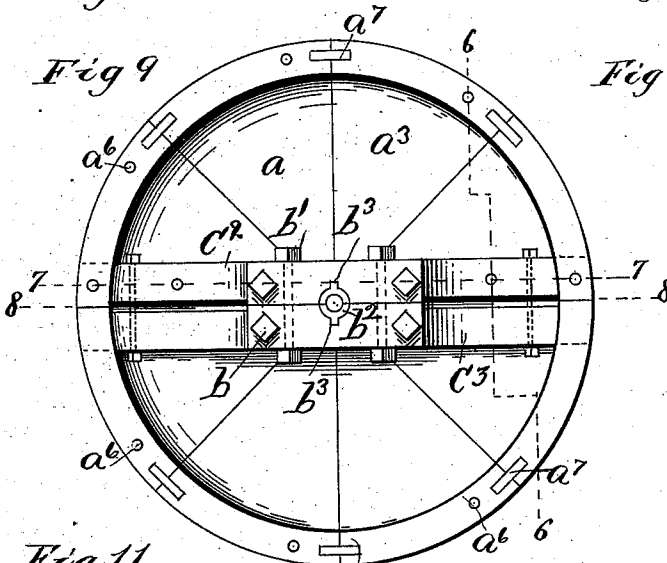


Fig 9

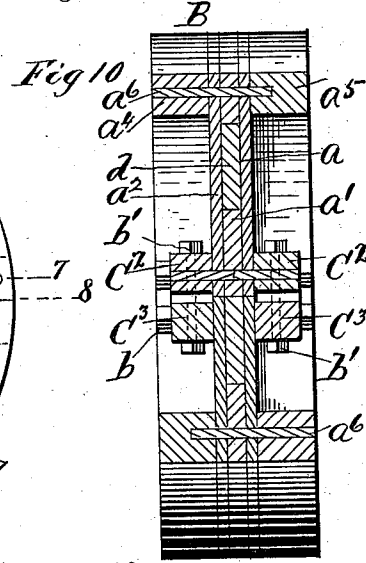


Fig 10

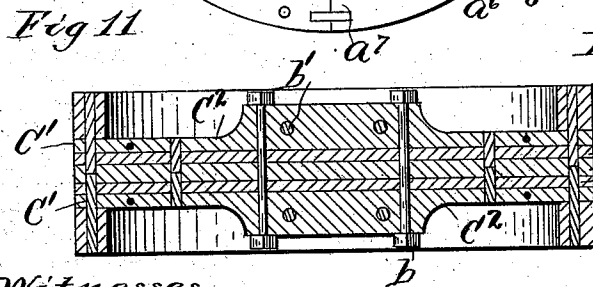


Fig 11

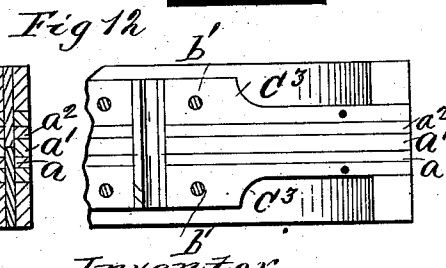


Fig 12

Witnesses.
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UNITED STATES PATENT OFFICE.

AMOS KEHLER, OF WARSAW, INDIANA.

SPLIT BAND-PULLEY.

SPECIFICATION forming part of Letters Patent No. 400,574, dated April 2, 1889.

Application filed October 23, 1888. Serial No. 238,982. (No model.)

To all whom it may concern:

Be it known that I, AMOS KEHLER, of Warsaw, Kosciusko county, and State of Indiana, have invented certain new and useful Improvements in a Split Band-Pulley, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in separable wood pulleys; and the same consists in certain novel features in the construction, combination, and arrangement of the different parts, as will be hereinafter set forth.

Figure 1 is a side elevation of a pulley embodying my improved features; Fig. 2, a section in plane 1 1, Fig. 1; Fig. 3, a section in plane 2 2, Fig. 2; Fig. 4, a broken-away section in plane 4 4, Fig. 3; Fig. 5, a similar broken-away section in the opposite side; Fig. 6, a section in plane $x x$, Fig. 2; Fig. 7, a broken-away section in plane 5 5, Fig. 1; Fig. 8, a detached view of one of the series of triangular sections forming the two outside layers of the pulley. Fig. 9 is a side elevation showing a slight modification; Fig. 10, a section in the angular plane 6 6, Fig. 9; Fig. 11, a section in plane 7 7, Fig. 9; and Fig. 12, a broken-away section in plane 8 8, Fig. 9.

Referring to the drawings, A represents the web of the pulley, which consists of three layers or disks, $a a' a^2$. The two outside layers $a a^2$ consist of a number of triangular-shaped quarter or segmental sections, a^3 , (see Fig. 8,) while the center or foundation layer a' is made up of a number of transverse pieces, d , as shown in Fig. 6. The number of pieces used in the central part of the web will depend on the diameter of the pulley—two or more. As for very small pulleys, two semi-circular parts might be used, and for larger pulleys a greater number, as illustrated.

The layers and sections forming the web of the pulley will be so disposed relative to each other in building up the same as to cause the grain of the wood to run in as many different directions as possible, and thereby prevent warping, and at the same time adding stability and strength to the structure as a whole.

The several layers will be secured together

by means of any suitable adhesive composition—such as glue—and then subjected to a heavy pressure, thus forming a solid web or body.

The outer edge of the web forms a part of the rim B of the pulley, as shown in Fig. 2.

The segment rim-pieces $a^4 a^5$ are secured to the web by means of a number of dowel-pins, a^6 , (see Figs. 4 and 5,) which are inserted alternately from each side and pass clear through the web and into the rim-pieces on the opposite sides. The rim-pieces are further secured relative to each other by means of the rectangular keys a^7 , one half of each key being set into the joining ends of the segments, as shown in Figs. 1 and 2.

The hub of the pulley consists of the rectangular clamping-bars C C', the bar C being secured to one half of the separable pulley and the bar C' to the companion half by means of the bolts b . The clamping-bars forming the hub are duplicated on the opposite side of the pulley, as shown in Fig. 2.

The two halves forming the pulley as a whole are secured together by the clamping-bolts b' , which pass through the clamping-bars at right angles to the bolts b .

The hub-bushing b^2 is divided longitudinally into two equal parts and provided exteriorly and longitudinally with the feather or rib b^3 , fitting into a corresponding groove or keyway in the hub and web of the pulley.

Figs. 9, 10, 11, and 12 illustrate a pulley of the same general construction with a few modifications only employed in the construction of large and heavy pulleys. As shown, the clamping-bars C² C³, forming the hub, extend out to and form part of the rim. The rim-pieces are secured to these bars and the web by the dowel-pins a^6 , the keys a^7 locking the rim-segments together. This modification adds strength and stiffness to the structure, but is not necessary in the average or smaller sized pulleys.

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

1. In a split pulley, the web composed of a number of layers, the two outer layers consisting of a number of triangular-shaped sections, and the inside or center layer of a number of

rectangular pieces arranged transversely to the triangular pieces, substantially as and for the purpose set forth.

2. A separable or split pulley the web
5 whereof is composed of a number of layers, the two outer layers consisting of a number of triangular-shaped sections, and the inside layer of a number of rectangular pieces arranged transversely to the triangular parts,
10 the segment rim-pieces secured to the respective sides of said web, the periphery of which forms the central part of the rim, the

means described for securing said parts together, the clamping-bars forming the hub, the bolts for securing said bars to the web, the clamping-bolts passing through said bars and locking the two parts forming the pulley together, and the bushing divided longitudinally and provided with a feather or rib on each part, substantially as set forth. 15

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Witnesses:

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