

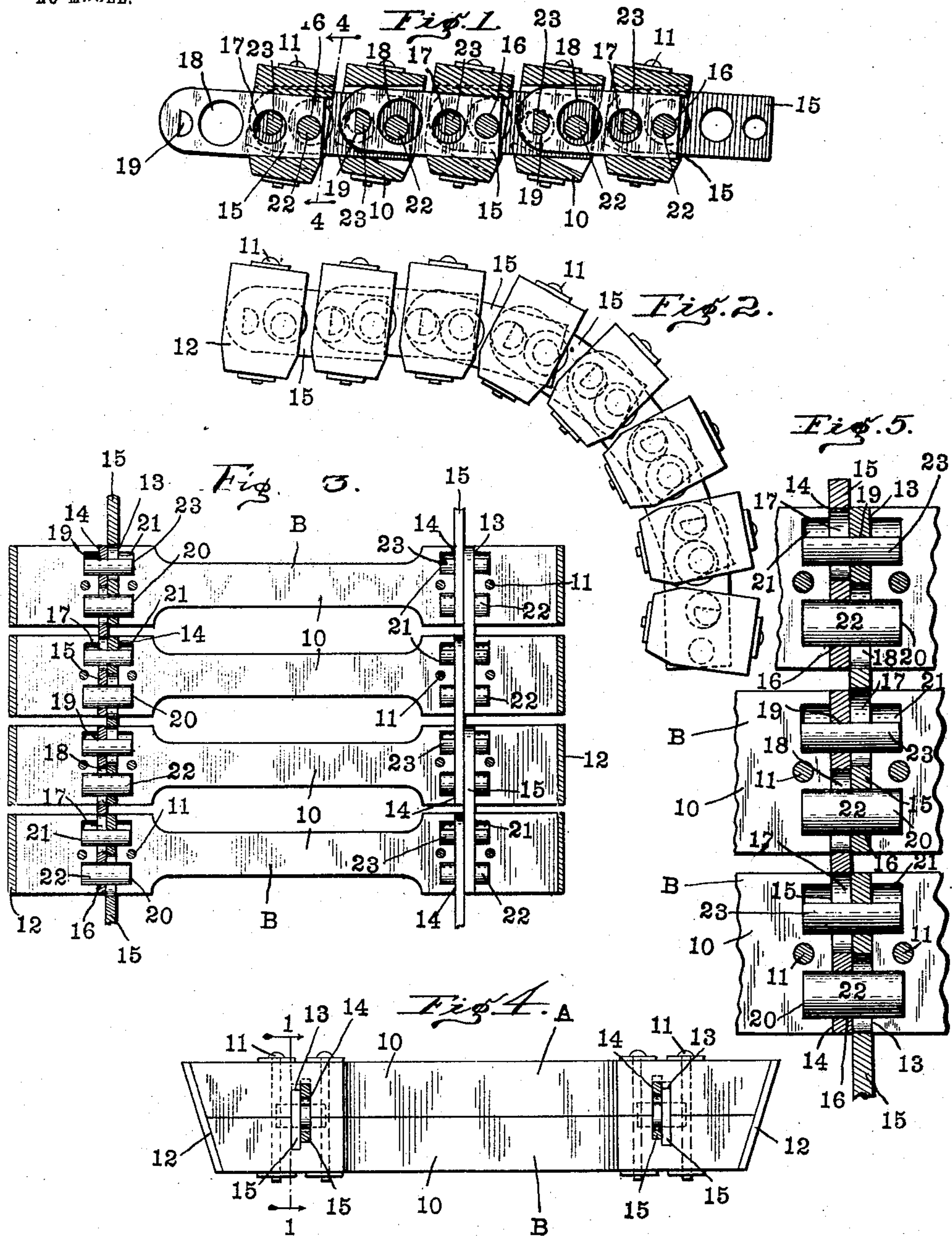
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PATENTED MAR. 8, 1904.

M. O. REEVES.
LINK BELT.

APPLICATION FILED DEC. 21, 1903.

NO MODEL.



Witnesses
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MILTON O. REEVES, OF COLUMBUS, INDIANA, ASSIGNOR TO REEVES PULLEY COMPANY, OF COLUMBUS, INDIANA, A CORPORATION OF INDIANA.

LINK BELT.

SPECIFICATION forming part of Letters Patent No. 754,238, dated March 8, 1904.

Application filed December 21, 1903. Serial No. 186,125. (No model.)

To all whom it may concern:

Be it known that I, MILTON O. REEVES, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented certain new and useful Improvements in Link Belts, of which the following is a specification.

In that type of speed-varying mechanisms shown in Patent No. 603,065, issued April 26, 1898, to the Reeves Pulley Company, the belt between the two pairs of cones has heretofore been formed of a leather or other flexible endless web carrying strengthening transverse struts or bars with inclined or tapered ends. Such a belt has objectionable features in that the peculiar stresses tend to destroy it.

The object of my present invention is to produce a belt fit for use in machines of this type and of such construction that it may be easily produced and such that the stresses applied thereto will not tend to pull the parts asunder.

The accompanying drawings illustrate my invention.

Figure 1 is a transverse section substantially parallel to one of the working faces and on line 1 1 of Fig. 4. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is a horizontal section. Fig. 4 is a section on line 4 4 of Fig. 1, and Fig. 5 is a detail on a larger scale.

The belt is composed of a plurality of cross-pieces 10, (which cross-pieces are formed of an upper or outer half A and a lower or inner half B, secured together by suitable bolts or rivets 11.) Each of these cross-bars is provided at its ends with suitable friction-surfaces 12 12, of leather or other suitable material, the said ends being beveled to conform to the angle of the working faces of the cones with which the belt is to contact. Each block 10 is provided near each end and at intermediate points, if desired, with a pair of longitudinal slots 13 and 14, which are preferably immediately adjacent. Slot 13 is of such size that one end of a link 15 may fit tightly therein, this link projecting transversely (longitudinally of the belt length) from the block and adapted to seat within the corresponding slot 14 of the adjacent block. The slot 14 is some-

what V-shaped in longitudinal section, as shown in the second and fourth blocks in Fig. 1, so that the end of the link 15 projecting thereinto may have a limited swing or movement therein. Each link 15 is provided at one end with an opening 16. Next to this opening is a larger opening 17, next to this a larger opening 18, and next to this, at the opposite end of the link, a D-shaped opening 19. Each block 10 is provided with a pair of pin-sockets 20 and 21, circular in cross-section, preferably, and extending across the slots 13 and 14. The slots 13 and 14 are alternately arranged in alternate blocks—that is to say, turning to Fig. 3, in the upper block slot 13 is next the middle, while slot 14 is on the outside, and in the next block slot 13 is on the outside and slot 14 on the inside, &c.

In assembling the belt the links 15 are identical, and each of said links is provided with a pin 22, fitting in opening 16 and adapted to lie in any one of the sockets 20 and to pass through any one of the openings 18 of an adjacent overlapping link and is also provided with a D-shaped pin 23, fitting tightly in the D-shaped opening 19 and adapted to lie within any one of the sockets 21 and to pass through the opening 17 of an adjacent link. The links are assembled as shown in Fig. 3, and the pins 22 and 23 are seated in the sockets 20 and 21, respectively, in the lower or inner half B of the cross-bars, and the upper half A is then secured in position. Each link 15 is thus rigidly secured to a block 10, its one end fitting in the corresponding slot 13 and held in position by the pin 22, while its other end projects into the slot 14 of the adjacent block in which slot it is swiveled on pin 23 as an axis, the pin 23 being substantially integral with the link and swinging in the socket 21. A pull exerted upon two links 15 in opposite directions will thus result in a pull upon the two pins 22 and 23, tending to move the pins toward each other, and thus compressing the material between them. There is therefore no tendency to split or separate the two sections of each block. The distinguishing feature of my belt is therefore the production of

a link belt in which the pull exerted by adjacent links is toward each other instead of away from each other. The links being identical and alternate blocks 10 being identical, the belt may be very easily assembled, cheaply constructed, and when produced will be exceedingly efficient.

I claim as my invention—

1. A flexible belt consisting of a plurality of transverse members, and a plurality of longitudinal links the overlapping adjacent ends of which are independently secured to the transverse members.

2. A flexible belt consisting of a plurality of transverse members, a plurality of connecting-links each of which is rigidly secured in one transverse member and pivotally connected to the adjacent transverse member, the adjacent ends thereof overlapping each other, for the purpose specified.

3. A flexible belt consisting of a plurality of transverse members, a plurality of connecting-links the adjacent ends of which overlap each other, and a pair of pins for each link, each of said pins passing through a free opening in the adjacent link.

4. A flexible belt consisting of a plurality of transverse bars each having a pair of link-slots 13 and 14 and a pair of pin-sockets 20 and 21, and a plurality of links each secured in one set by a pin 22, and pivoted in the other slot of the adjacent bar by pin 23, each of said pins passing freely through the overlapping end of an adjacent link.

5. A flexible belt consisting of a plurality of transverse bars each composed of a pair of mating members, having a pair of link-slots formed across the adjacent faces of said members and a pair of pin-sockets formed in said faces across the slots, a plurality of links arranged in one slot of each bar, and a pair of pins for each link resting in the pin-sockets, each of said links passing freely through the overlapping end of the adjacent link.

In witness whereof I have hereunto set my hand and seal, at Columbus, Indiana, this 7th day of December, A. D. 1903.

MILTON O. REEVES. [L. s.]

Witnesses:

E. K. HOOD,
JNO. JEWELL.