

(No Model.)

M. O. REEVES.

BELT TAKE-UP FOR SPEED VARYING MECHANISM.

No. 584,402.

Patented June 15, 1897.

Fig. 1.

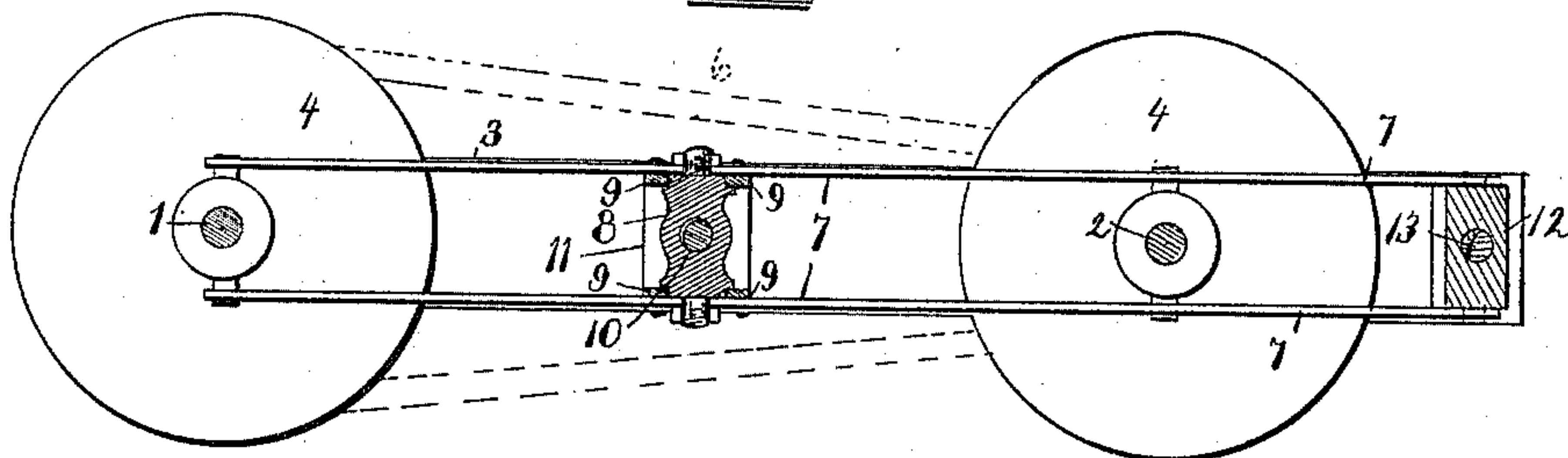


Fig. 2.

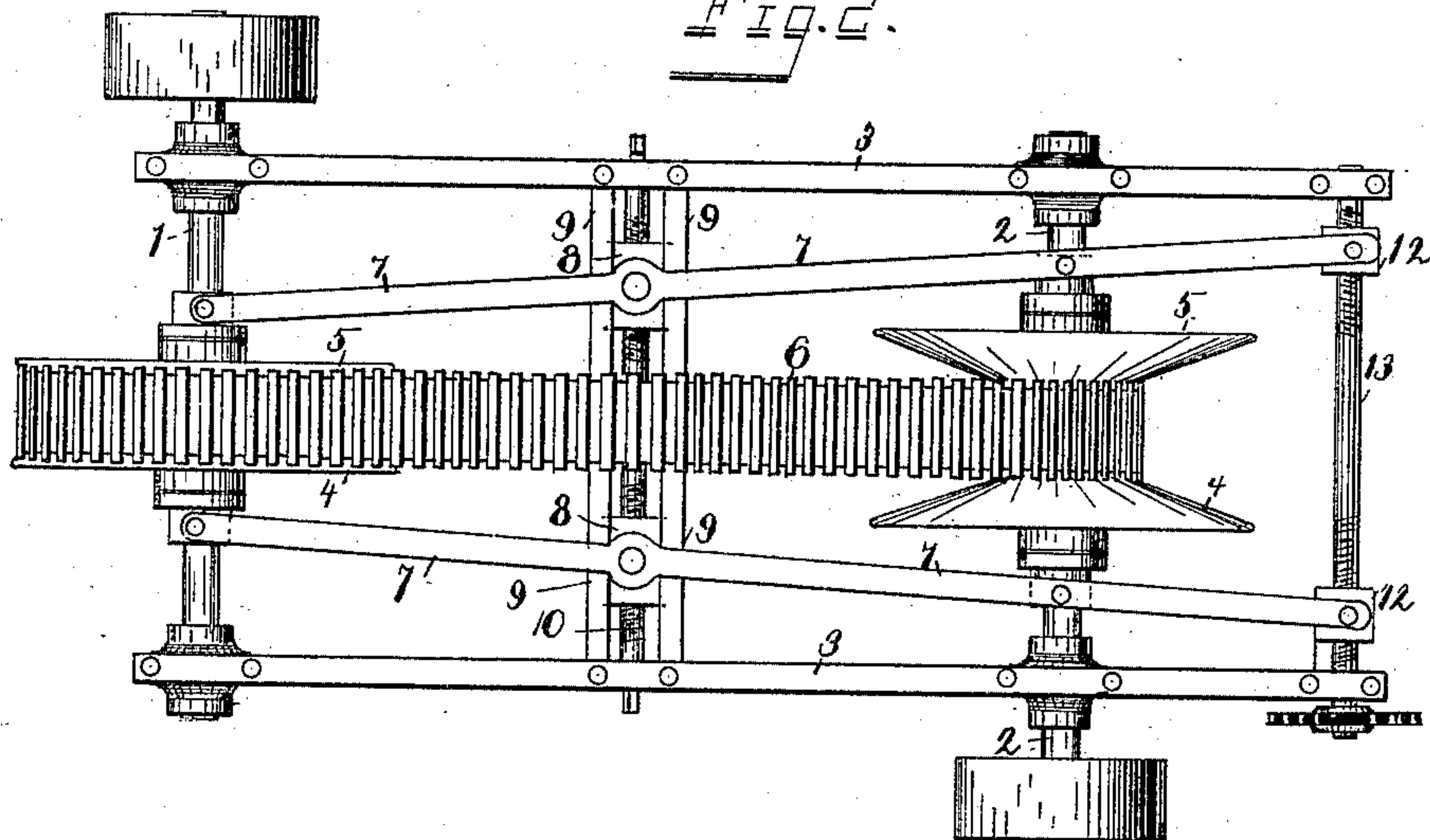


Fig. 3.

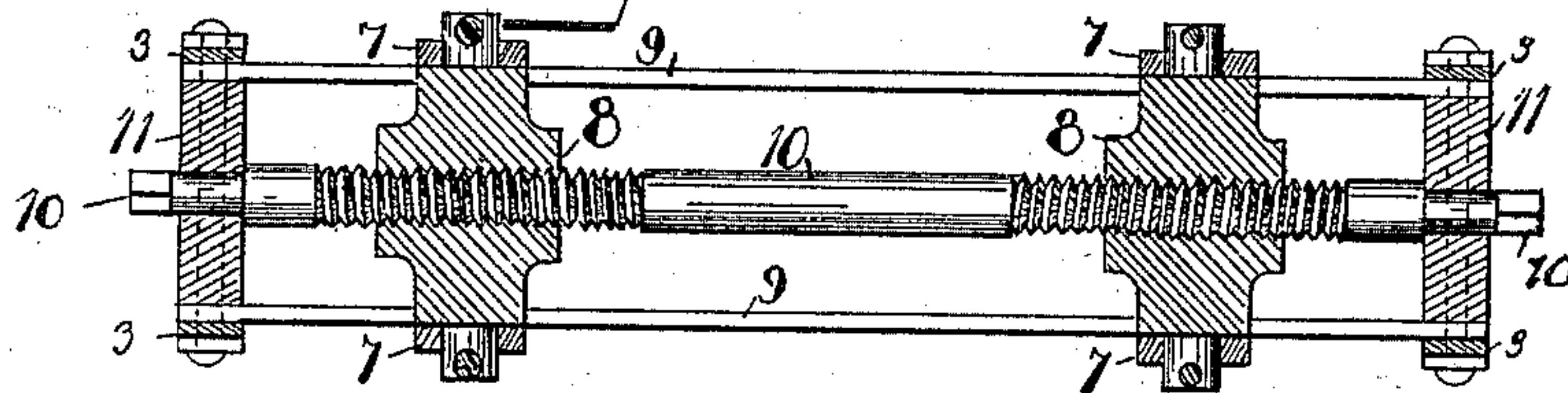
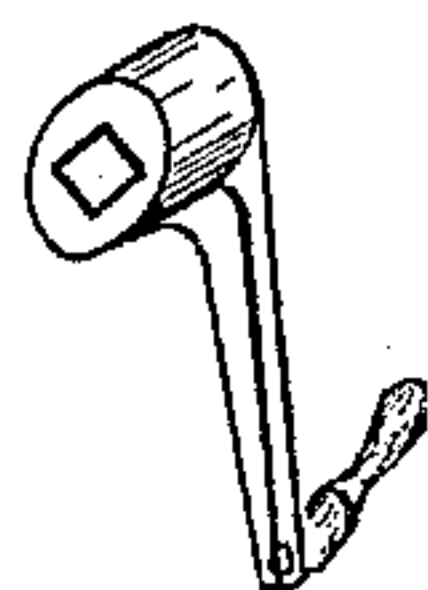


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## BELT-TAKE-UP FOR SPEED-VARYING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 584,402, dated June 15, 1897.

Application filed January 11, 1897. Serial No. 618,752. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON O. REEVES, a citizen of the United States of America, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented certain new and useful Improvements in Belt-Take-Ups for Speed-Varying Mechanism, of which the following is a specification.

The object of my invention is to provide mechanism for taking up or compensating for any slack in a belt used in a speed-varying mechanism, employing two pairs of cone-shaped disks, the members of each pair adapted to approach or recede from each other; and my invention consists in the combination and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation, partially in section; Fig. 2, a top plan; Fig. 3, a detail section of my improvement, and Fig. 4 a perspective of an operating-wrench.

The speed-varying mechanism upon which my invention is applicable consists, primarily, of two parallel shafts 1 and 2, mounted in a suitable frame 3, each carrying a pair of cone-shaped disks 4 and 5, splined to their respective shafts, having their small ends facing each other and adapted to move longitudinally on their shafts. Stretched between the pairs of disks is a bevel-edged driving-belt 6, which transmits power from one pair to the other.

By moving the disks of one pair toward each other and the disks of the other pair away from each other the belt works upon different relative diameters and the speed of one shaft is varied relatively to the other.

The corresponding disks of each pair have heretofore been connected by levers pivoted half-way between the shafts, adapted to move one pair of disks together as the other pair moved apart.

In my improved device I pivot levers 7, connecting the corresponding disks, upon blocks 8, movable transversely across the frame. In the form shown these blocks are mounted between bars 9, extending transversely across the frame, and are provided with threaded apertures through which works a screw-shaft 10, provided with a right-hand threaded por-

tion adapted to cooperate with one of the blocks 8 and a left-hand threaded portion adapted to cooperate with the other block, so that when it is revolved the blocks are made to approach or recede from each other.

The screw-shaft 10 is reduced at its ends and shoulders against blocks 11, carried by the frame. The outer ends are squared to receive a wrench.

It is a difficult matter to lace a belt upon a device of this kind and also to keep it tight. It will be seen that by mounting the pivots for the levers upon blocks movable transversely across the frame the belt may be laced and then the disks of both pairs moved together by moving the pivot-blocks, thereby making the belt move outwardly on the disks and tightening it.

For operating the levers for varying speed I have shown a preferred form, consisting of threaded collars 12, engaging with extensions of levers 7, which operate upon a right and left hand threaded screw-shaft 13.

It will be understood that various methods may be used for moving the pivots for the levers transversely without departing from the spirit of my invention.

I claim as my invention—

1. In a speed-varying mechanism, the combination of a frame; two parallel shafts mounted thereon; a pair of cone-shaped disks splined to each shaft; a belt connecting the pairs; levers pivoted between the shafts and connecting the corresponding disks of each pair, and means for moving the pivots transversely across the frame, substantially as and for the purpose set forth.

2. In a speed-varying mechanism, the combination of a frame; two parallel shafts mounted thereon; a pair of cone-shaped disks splined to each shaft; a belt connecting the pairs; levers pivoted between the shafts, and connecting the corresponding disks of each pair; and threaded blocks carrying the pivots, and a screw-shaft adapted to move the blocks currently toward, or from each other, substantially as and for the purpose set forth.

3. In a speed-varying mechanism, the combination of a frame; two parallel shafts carried thereby; a pair of cone-shaped disks

splined to each shaft; a belt connecting the  
pairs; bars extending transversely across the  
frame between the shafts; blocks adapted to  
slide thereon, and carrying levers pivoted  
5 thereto connecting the corresponding disks  
of each pair, and a right and left hand screw-  
shaft adapted to move the blocks concu-

rently toward or from each other, substan-  
tially as and for the purpose set forth.

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Witnesses:

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