

No. 610,151.

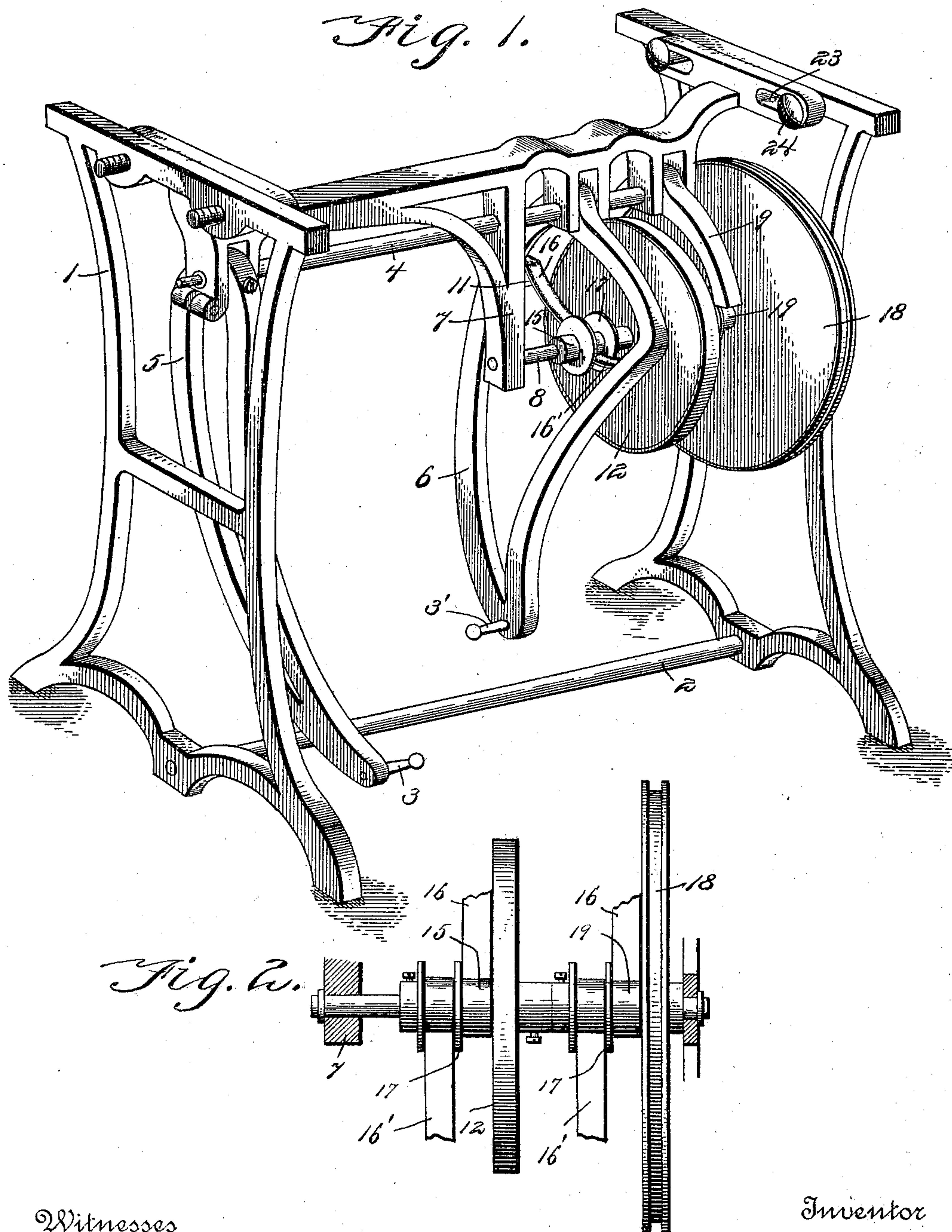
Patented Aug. 30, 1898.

D. ASHMAN.  
POWER TRANSMITTING DEVICE.

(Application filed June 12, 1897.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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Victor J. Evans

Inventor

David Ashman,  
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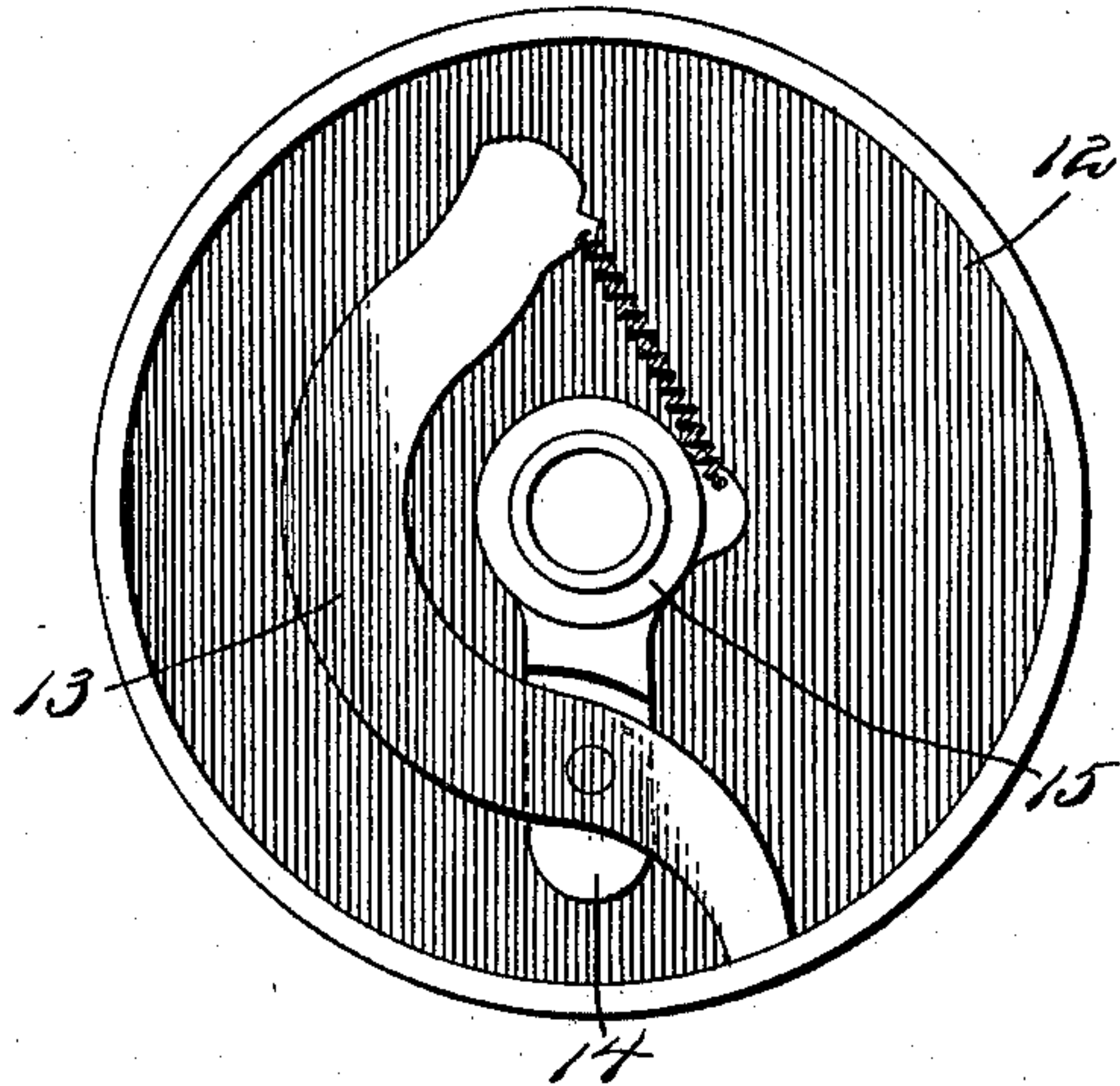
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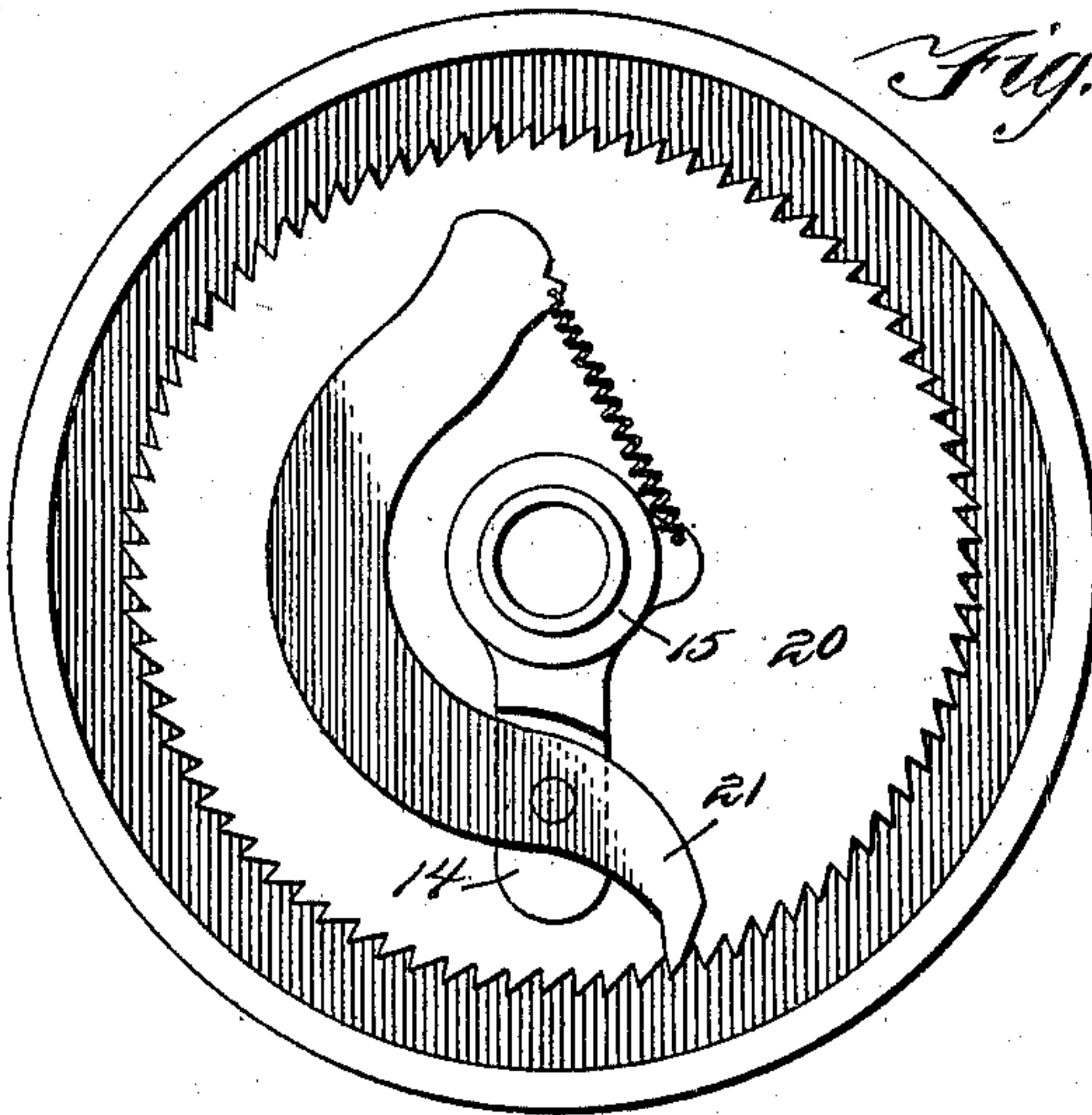
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*Fig. 3.*



*Fig. 4.*



Witnesses

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# UNITED STATES PATENT OFFICE.

DAVID ASHMAN, OF BALTIMORE, MARYLAND.

## POWER-TRANSMITTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 610,151, dated August 30, 1898.

Application filed June 12, 1897. Serial No. 640,545. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID ASHMAN, of Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Power-Transmitting Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to power-transmitting mechanism for accelerating the rotation of a drive-wheel or gearing mounted therein. My improved mechanism is especially designed for actuating sewing-machines and machines in general which are propelled by means of pedals.

In the drawings herewith forming part of this specification, Figure 1 is a perspective view of a machine equipped with my driving mechanism. Fig. 2 is a side elevation of the drive-shaft and drive and band wheels mounted thereon. Fig. 3 is a side elevation of the drive-wheel, showing the friction-pawl. Fig. 4 shows a modified form of the same.

In the construction of the propelling mechanism I provide, first, the stand 1, consisting of side and transverse portions and having a longitudinal brace-rod 2. In the upper portion of said stand I provide an oscillating transverse shaft 4. Adjacent to one end of said shaft 4 is mounted fast a sector-lever 5, the lower end of said lever being provided with a pedal 3. At a point adjacent to the other end of said shaft 4 I provide another sector-lever 6, the said last-mentioned lever being mounted loosely upon shaft 4 and having at its lower end a pedal 3'. The function of the sector-lever 5 is to oscillate the shaft 4 by means of the pedal 3.

Depending centrally from the upper transverse portions of the stand 1 is a hanger 7, and between the lower end of said hanger and the side of the stand is journaled a rotatable countershaft 8, said shaft extending approximately but half-way across the stand. The upper shaft 4 is at its upper end provided with a cross-head having two oppositely-extending arms 9, one arm of which extends forward and the other rearward, both inclining downward, said arms being designed to have driving-straps secured thereto. Suitable means are provided for rigidly securing

said cross-head upon the said shaft. The sector-lever 6, as shown, is constructed so that portions thereof will constitute arms the equivalent of and similar to the arms 9 above described and for a like purpose. The said sector-lever 6 is provided at the rear with a lug 11, to which one of the driving-straps is attached, and the rear arm 9 of the cross-head has a corresponding lug for the same purpose.

Mounted fast upon the shaft 8 is a drive-wheel 12, provided with a friction-clutch 13, pivoted upon a rabbeted portion of a lug 14, carried by a sleeve 15, loosely mounted upon said shaft 8.

The sleeve 15 is rotated by means of driving straps or bands 16 and 16', having their inner ends secured to the periphery of the sleeve 15. The opposite ends of said straps are secured one to the most forward portion of the sector-lever 6 and the other upon the lug 11. The said straps wind in reverse directions around the shaft and move in different vertical planes, being separated from each other by means of a flange or collar 17 on said sleeve 15. The outer end of said shaft 8 is provided with similar propelling mechanism in connection with the ends of the arms 9 on the upper shaft 4. The outer end of said shaft is provided with a band-wheel of enlarged diameter mounted fast thereon and provided with an actuating-pawl pivoted upon a second sleeve 19. Driving-straps 16 and 16' are employed in connection with each of the sleeves 15 and 19.

The sector-levers 5 and 6 have their lower ends in different longitudinal planes, one being projected farther forward than the other when the attachments are made. This construction is necessary in order that the positive actuating effect of the levers may be differential in respect to each other, so that in operation when one pedal is forced downward the momentum acquired in the forward rotation of the drive-wheel 12 will be retained until succeeded by the positive action of the other sector-lever upon the band-wheel 18, thus causing the continuous motion of said band-wheel.

I may also provide means for adjusting the upper transverse portion of the stand, so that it may be moved inward or outward, as desired. This I effect by providing slotted end



plates 23 and set-screws 24, passing through the slots and into screw-threaded apertures in the vertical side portions of the stand.

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

1. In power-transmitting mechanism, the combination with a hollow wheel or pulley, and a rotary shaft on which the same is jour-  
naled, of an arm connected to said shaft and  
having a rabbeted end, an **S**-shaped clutch-  
pawl pivotally mounted in the rabbeted end  
of the arm and engaging the inner surface of  
the wheel or pulley, the long arm of said clutch  
partially encircling the shaft, and a spring  
connected to said long arm at one end and hav-  
ing its opposite end attached to a lateral ex-  
tension of the arm on which the clutch is piv-  
oted, substantially as described.

2. In power-transmitting mechanism, the combination with a hollow wheel or pulley,

and a rotary shaft on which the same is jour-  
naled, of an arm connected to said shaft and  
having a rabbeted end, an **S**-shaped clutch-  
pawl pivotally mounted in the rabbeted end  
of the arm and engaging the inner surface of  
the wheel or pulley, the long arm of said clutch  
partially encircling the shaft, and a spring  
connected to said long arm at one end and hav-  
ing its opposite end attached to a lateral ex-  
tension of the arm on which the clutch is piv-  
oted, and a pair of foot-operated levers geared  
to said shaft for imparting rotary motion  
thereto, substantially as described.

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

DAVID ASHMAN.

Witnesses:

THOMAS J. MCCLAIN,  
JULIUS HURSOHN.