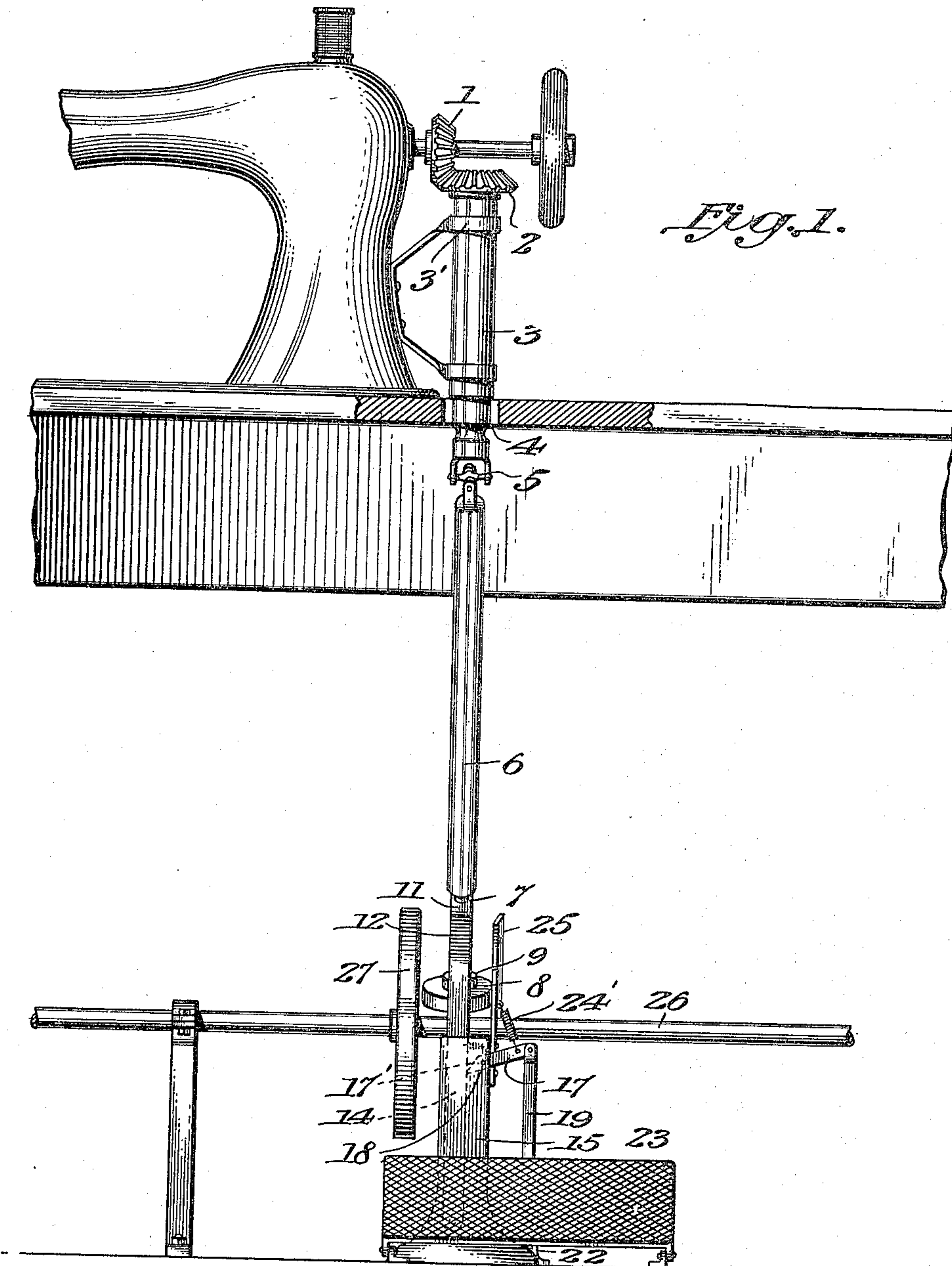


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S. T. SIMMONS.
MECHANISM FOR TRANSMITTING POWER.
APPLICATION FILED JUNE 12, 1915.

Patented Sept. 28, 1915.
2 SHEETS—SHEET 1.



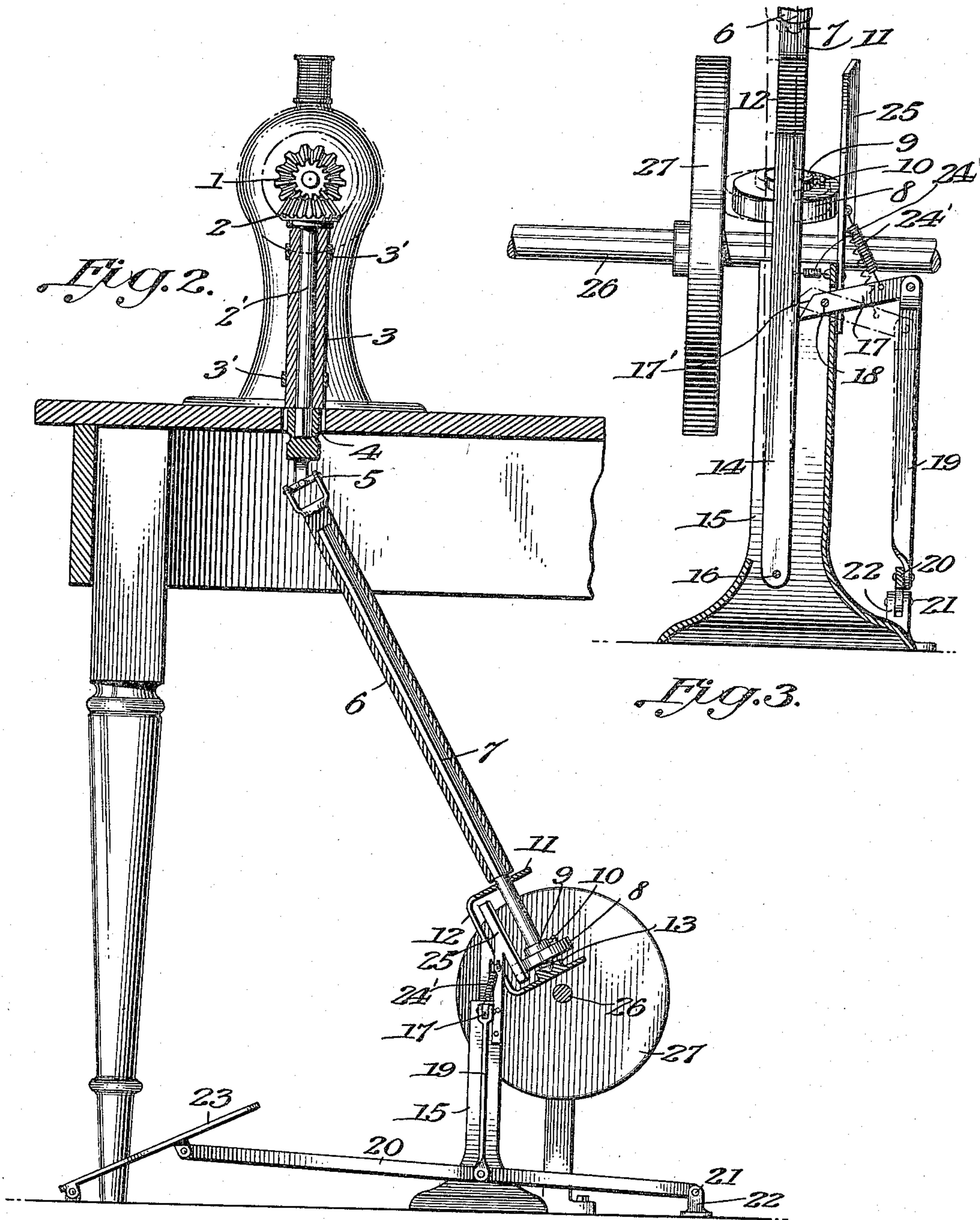
Inventor:
Samuel T. Simmons
By *Caro Bogge* *DB*
His Atty.

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UNITED STATES PATENT OFFICE.

SAMUEL T. SIMMONS, OF COLUMBUS, OHIO.

MECHANISM FOR TRANSMITTING POWER.

1,155,284.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed June 12, 1915. Serial No. 33,737.

To all whom it may concern:

Be it known that I, SAMUEL T. SIMMONS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Mechanism for Transmitting Power, of which the following is a specification.

My invention relates to certain new and useful improvements in a mechanism for transmitting power whereby any evils arising from the use of belts are avoided.

The invention consists of the details of construction in the parts and their various combinations and operations in producing the desired result as more fully hereinafter described.

In the accompanying drawings forming a part of this specification, Figure 1 is a front elevation showing my device as applied to transmitting the motion of the main shaft to a sewing machine. Fig. 2 is a side elevation of the same with some of the parts broken away. Fig. 3 is a view in cross section of Fig. 2.

The numeral 1 is a beveled gear on the shaft of a sewing machine in mesh with gear 2 mounted on a short shaft 2'. This shaft 2' is supported by a hollow sleeve 3, fastened to the machine by bracket 3'. One end of the shaft 2' is square, and is received in a short coupling 4. This coupling 4 is connected to one side of an universal joint 5. To the other side of the universal joint 5, is connected a hollow shaft 6, the interior of which is square. In this shaft is received the solid shaft 7, cut square to form a sliding connection with shaft 6. Mounted on the shaft 7 is a friction wheel or pulley 8, provided with a hub 9 in which is fastened a set screw 10, by means of which it is possible to adjust the pulley for the speed desired, increasing the speed as the pulley is moved toward the outer periphery of the main driving disk and retarding it as it is moved toward the center of said driving disk.

The shaft 7 is supported in a journal 11, fastened to one end of support 12, the other end of which terminates in bearing 13. The support 12 is rigidly connected to rod 14 (as shown in Fig. 3) which is in turn pivotally mounted upon a base 15 by means of a pin 16. Toward the top of base 15 is mounted a short lever 17, fulcrumed on pin 18. One end of the lever terminates in a beveled face 17', and pivotally connected to

the other end is a link 19 which is pivotally connected to treadle rod 20, fulcrumed at 21 on a support 22. The other end of rod 22 is connected to treadle 23. A spring 24 connects rod 14 with the base 15, and a brake 25 is likewise supported on base 15, with which wheel 8 is normally in contact where it is held by spring 24. An additional spring 24' is provided between brake 25 and lever 17, in order to keep the lever out of engagement with the rod 14. Numeral 26 is the main drive shaft upon which is a flat friction disk 27.

I will now describe the operation of the mechanism: Upon the actuation of the treadle the lever 17 will be turned upon its fulcrum 18 by means of link 19 and treadle rod 20, and the beveled face 17', will come in contact with rod 14 overcoming the force of the spring pushing the friction wheel 8 against the face of the friction disk 27. Immediately upon the release of the pressure on the treadle the spring 24 will release the wheel 8 from the disk 27 and pull it back against the brake 25, stopping the machine almost instantly.

While I have shown my invention as applied to a sewing machine, it is obvious that it could be applied to many others, and hence I do not limit myself to the precise structure set forth.

I claim:

1. In a mechanism for transmitting power, the combination of a drive disk, a shaft, a wheel adjustably mounted thereon, a base, supporting means for said shaft pivotally connected to the base, a lever fulcrumed on the base independent of the supporting means, and actuating means for forcing the lever against the supporting means for engaging said wheel with said drive disk.

2. In a mechanism for transmitting power, the combination of a drive disk, a shaft, a wheel adjustably mounted thereon, a base, supporting means for said shaft pivotally connected to the base, a lever fulcrumed on the base independent of the supporting means, a link connecting the lever with a treadle rod, and a treadle for actuating said lever against the supporting means for engaging said wheel with said disk.

3. In a mechanism for transmitting power, the combination of a drive disk, a shaft, a wheel adjustably mounted thereon,

a base, supporting means for said shaft pivotally connected to the base, a lever fulcrumed on the base, actuating means for forcing the lever against the supporting means for engaging said wheel with said disk, and means for disengaging the wheel from the disk upon the release of the actuating means.

4. In a mechanism for transmitting power, the combination of a drive disk, a shaft, a wheel adjustably mounted thereon, a base, supporting means for said shaft pivotally connected to the base, a lever fulcrumed on the base, and actuating means

for forcing the lever against the supporting means for engaging said wheel with said drive disk, a spring connected to the base and to the supporting means for oscillating the support to its normal position upon the release of the actuating means and a brake in the path of the supporting means against which it is normally held by the spring.

In testimony whereof I affix my signature.

SAMUEL T. SIMMONS.

Witnesses:

N. W. DICK,
HELEN ADAMS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."