

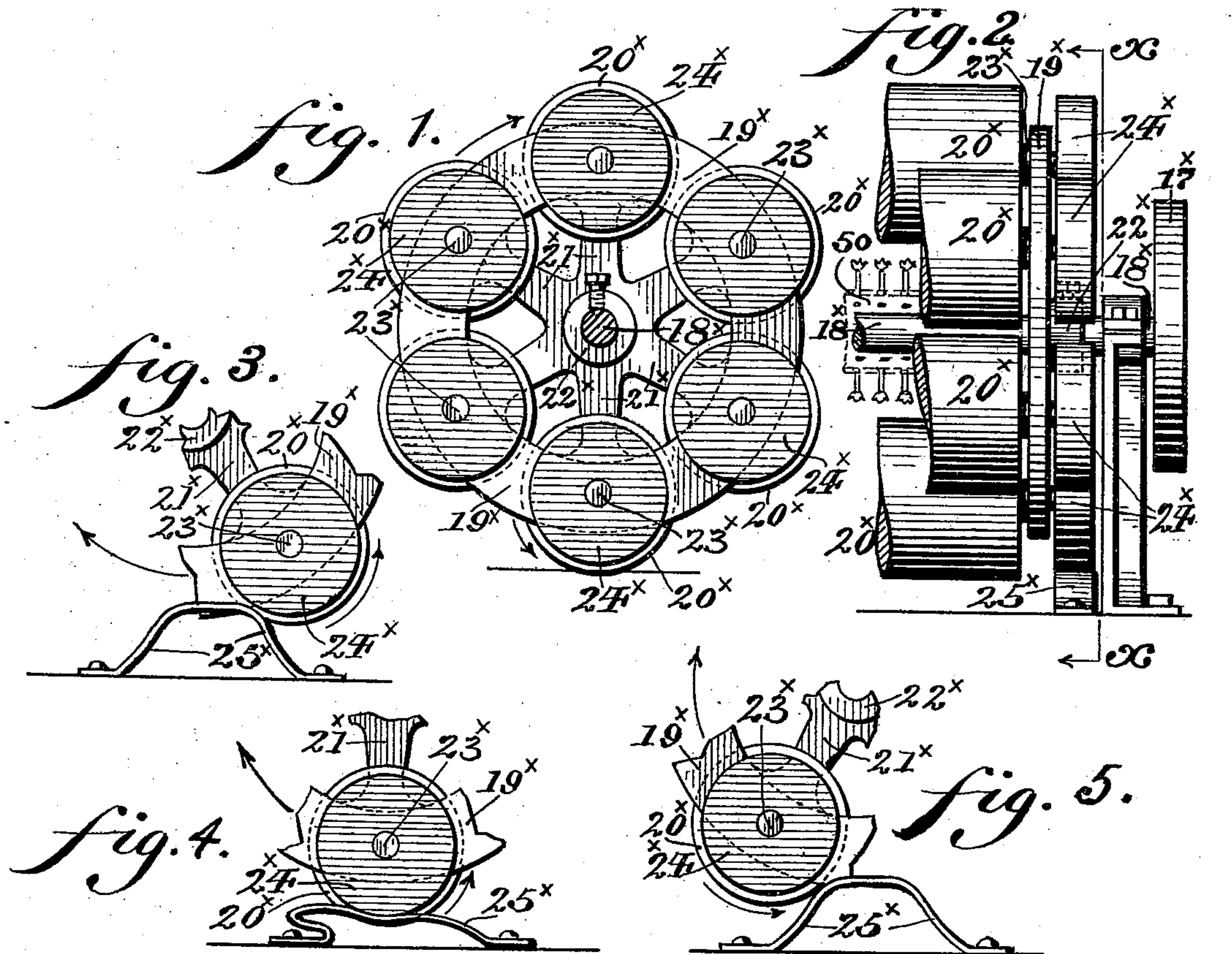
(No Model.)

J. M. MACK.

MECHANISM FOR TRANSMISSION OF POWER.

No. 548,002.

Patented Oct. 15, 1895.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## MECHANISM FOR TRANSMISSION OF POWER.

SPECIFICATION forming part of Letters Patent No. 548,002, dated October 15, 1895.

Application filed March 4, 1895. Serial No. 540,390. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. MACK, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Mechanism for the Transmission of Power, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel mechanism for the transmission of power, which is capable of general adaptation, but is more especially applicable to rolling, polishing, grinding, and other apparatus of a like character, whereby a pinion or roll is caused to revolve about a center removed therefrom, and to also simultaneously receive an independent axial rotation, whereby two independent rotations are imparted to said roll or pinion, the latter thus receiving a pushing as well as a rotating movement, which is desirable in certain kinds of work.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a vertical sectional view of an apparatus embodying my invention, the section being taken on line *x x*, Fig. 2. Fig. 2 represents an end view of Fig. 1, the central portion of the apparatus being broken away. Figs. 3 to 5, inclusive, represent detail views showing the springs employed to actuate the rolls and the position that the latter assume relative thereto at different intervals.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, 19<sup>x</sup> designates a spider, which is attached to the hub 22<sup>x</sup> by the arms 21<sup>x</sup> said hub being mounted on a shaft 18<sup>x</sup> and revolving therewith, said shaft having also a pulley 17<sup>x</sup> mounted thereon.

20<sup>x</sup> designates rolls, which have their journals 23<sup>x</sup> mounted in said spiders, said journals having the rollers 24<sup>x</sup> mounted on their extremities.

25<sup>x</sup> designates a suitable spring mounted in

the path of said rollers, the latter contracting therewith just before the rollers 24<sup>x</sup> reach their lowermost position, as will be understood from Figs. 3 to 5, inclusive, so that said rollers 24<sup>x</sup> will have a pushing motion and also a simultaneous axial motion when they reach their lowest point.

The rolls 20<sup>x</sup> may be heated from within by means of the perforated pipe 50, surrounding the shaft 18<sup>x</sup>, which may be provided with suitable gas-burners, the gas being introduced into said pipe 50 in any convenient manner.

The apparatus shown is especially adapted for light work and for rolling soft materials, and it will be evident that in every case the number and diameter of the rolls can be increased or diminished, according to requirements, and the diameter of the spiders can also be varied, in which case it will be apparent that when a large spider is used the frictional contact between the rolls mounted therein and the material rolled will be the greatest, said frictional contact being less as the diameter of the spider decreases, it being also noted that as the diameter of the rolls increases the frictional contact between said rolls and the material to be rolled also increases.

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

In an apparatus of the character described, a shaft, spiders mounted thereon, rolls supported by said spiders, journals for said rolls having one of their extremities extended beyond one of said spiders, and friction rolls mounted on said journals, in combination with a spring suitably supported, and located in the path of said friction rolls, and adapted to impart motion thereto, at proper intervals, substantially as described.

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Witnesses:

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