

No. 688,787.

Patented Dec. 10, 1901.

M. U. LOREE.
LOCOMOTIVE TOY.

Application filed Sept. 30, 1901.)

(No Model.)

Fig. 1.

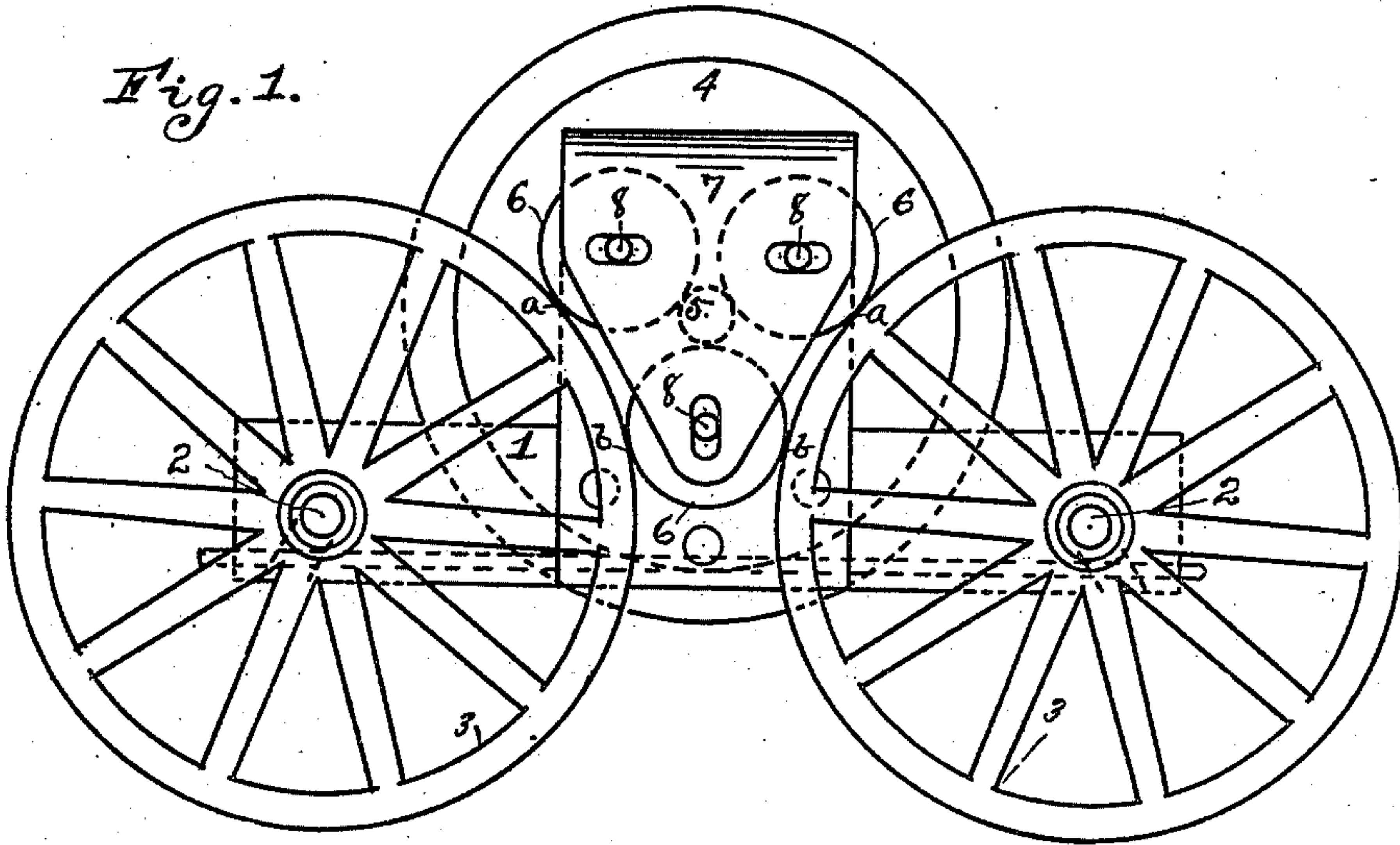


Fig. 2.

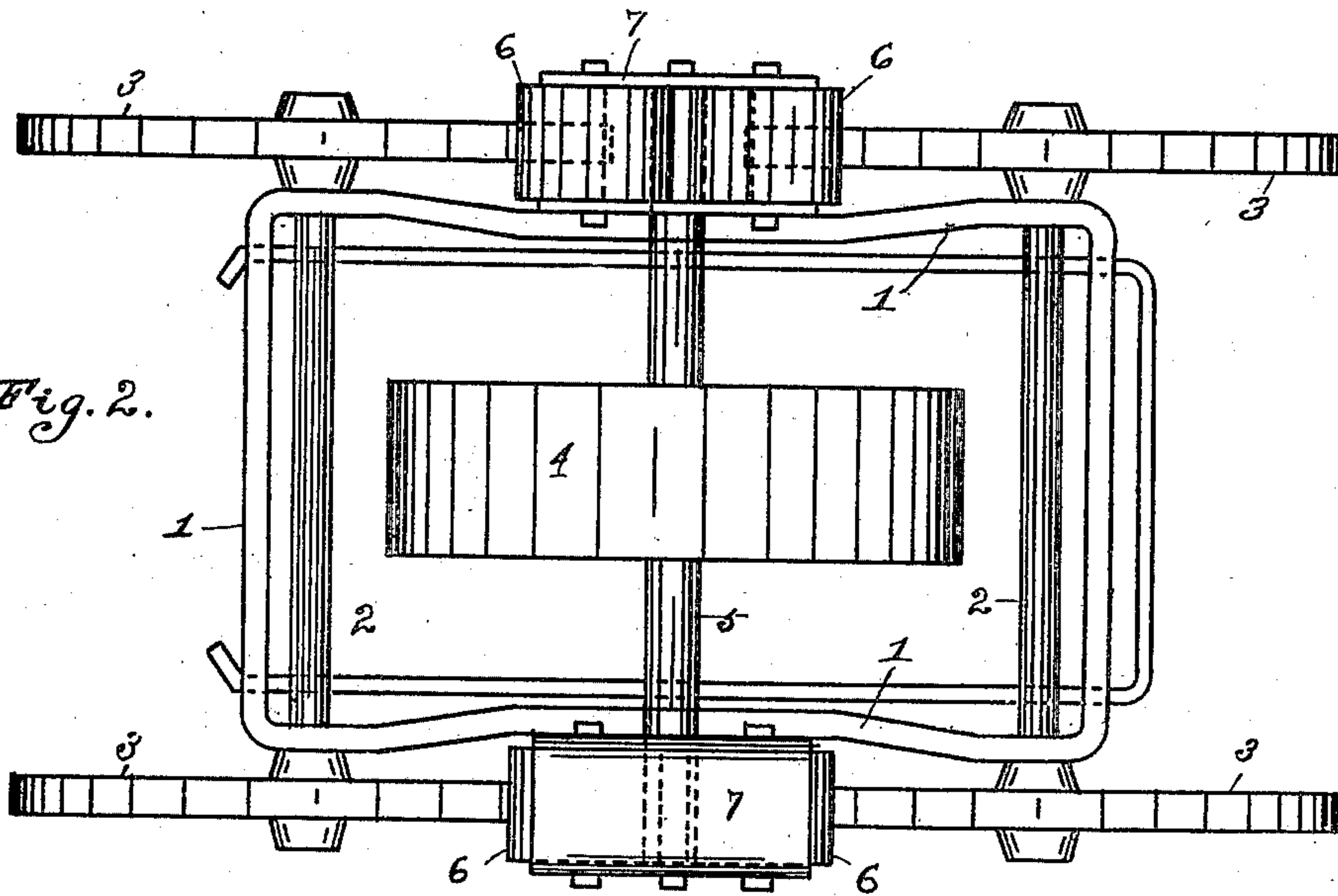
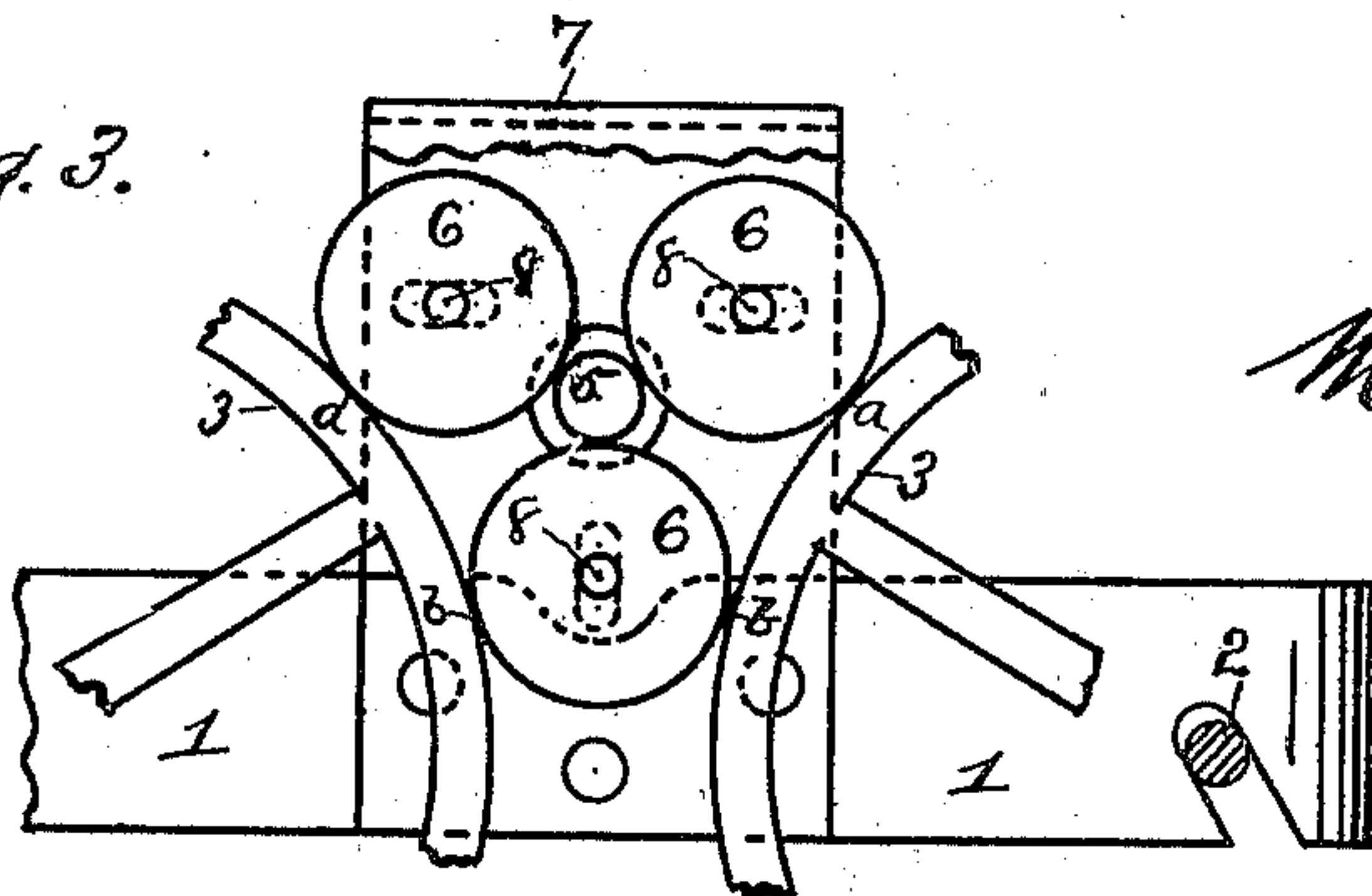


Fig. 3.



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LOCOMOTIVE TOY.

SPECIFICATION forming part of Letters Patent No. 688,787, dated December 10, 1901.

Application filed September 30, 1901. Serial No. 76,985. (No model.)

To all whom it may concern:

Be it known that I, MANFRED U. LOREE, a citizen of the United States, residing at Miamisburg, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Locomotive Toys; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in locomotive toys of the class in which the toy is propelled or driven from a motor consisting of an inertia or fly wheel.

The objects of the invention are, first, to provide means for preventing the usual noise attending the movements of such toys, which object is accomplished by interposing between the axle of the inertia-wheel and the peripheries of the vehicle-wheels a series of rollers of a non-metallic nature—such, for example, as wood or other similar non-noise-producing material, and, second, to provide means for transmitting the power from three sides of the axle of the inertia-wheel to two different points of the periphery of each running wheel, whereby a maximum amount of power is transmitted to said running wheels.

Preceding a detail description of my invention reference is made to the accompanying drawings, of which—

Figure 1 is a side elevation of my improved locomotive toy. Fig. 2 is a top plan view. Fig. 3 is a side elevation with the housing or bearing for the transmission-rollers on one side broken away.

In a detail description of my invention similar reference characters indicate corresponding parts in the several views of the drawings.

1 designates a truck-frame of any suitable design or shape and upon which may be mounted any suitable vehicle-body. Suitably mounted in or on this truck-frame are axles 2 2, which have running wheels 3.

4 designates a motor or inertia wheel having an axle 5, the ends of which have bearings between three power-transmission roll-

ers 6, which are located on each side of the vehicle, partially within the space between the running wheels and in positions which bring said rollers in biting or frictional contact with the peripheries of the running wheels on both sides of the vehicle, the biting or frictional contact of said rollers being at two points *a* and *b* on the periphery of each running wheel. The said rollers also make contact with three sides of each end of the axle of the inertia-wheel, so that the power generated by the inertia-wheel is transmitted from three different points of the axle of the said inertia-wheel to the peripheries of the running wheels. The spindles 8 of the rollers 6 are suitably mounted in bearings 7, which are mounted on the frame 1. The bearings 7 also constitute housings for the rollers. It will be seen that owing to this manner of mounting the axle of the inertia-wheel a maximum amount of power is transmitted to the running wheels of the vehicle. There is nothing that makes contact with the axle of the inertia-wheel that is not a power-transmission medium.

In toys of this class heretofore invented there are various means provided for forcing the axle of the inertia-wheel into contact with the peripheries of the running wheels. These means to a greater or less extent act to retard the power of the inertia-wheel and do not comprise a medium or mediums of transmission of such power.

In the present invention it will be observed that each of the transmission-rollers 6 in addition to affording a bearing for the axle of the inertia-wheel also constitute means for transmitting the power from said axle to the running wheels. As before stated, these rollers are of non-metallic nature. Consequently there is no rattling or other objectionable noises attending their movements in contact with the axle of the inertia-wheel and the peripheries of the running wheels.

In the act of storing power in the inertia-wheel, which is done by moving the truck or vehicle several times back and forth over a surface—such, for example, as a floor—downward pressure of the hand upon the truck or vehicle will cause the transmission-rollers 6 to bite or frictionally engage the peripheries

of the running wheels and the peripheries of the rollers to correspondingly bite or engage the surface of the axle of the inertia-wheel. This will cause a rotation of the inertia-wheel, and thereby energy will be stored therein, which will afterward be transmitted from the inertia-wheel to the running wheels in a manner easily comprehended.

Having described my invention, I claim—

10 1. In a locomotive toy, the combination of two pairs of running wheels, an inertia or motor wheel, power-transmission rollers adapted to engage with said running wheels and to make contact with two separate points
15 of the periphery of each running wheel, the said power-transmission rollers affording a bearing for each end of the axle of the inertia-wheel and whereby power is transmitted to said rollers from three sides of the axle of the
20 inertia-wheel, substantially as specified.

2. In a locomotive toy, the combination with two pairs of running wheels, an inertia-wheel, a plural number of power-transmission rollers between which each end of the
25 axle of the inertia-wheel has a bearing, the

said rollers being located between the rims of each two adjacent running wheels and adapted to engage with said running wheels to transmit power to different parts thereof, the power thus transmitted from said rollers being received thereby from three sides of the axle of the inertia-wheel, substantially as specified.

3. In a locomotive toy, the combination with two pairs of running wheels, an inertia-wheel, three power-transmission rollers located in the space between each two adjacent running wheels and engaging with two points of the periphery of each running wheel, the axle of the inertia-wheel having its bearing on each end between said rollers and transmitting power equally to each roller and thence to the running wheels, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

MANFRED U. LOREE.

Witnesses:

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J. A. WORTMAN.