

No. 754,822.

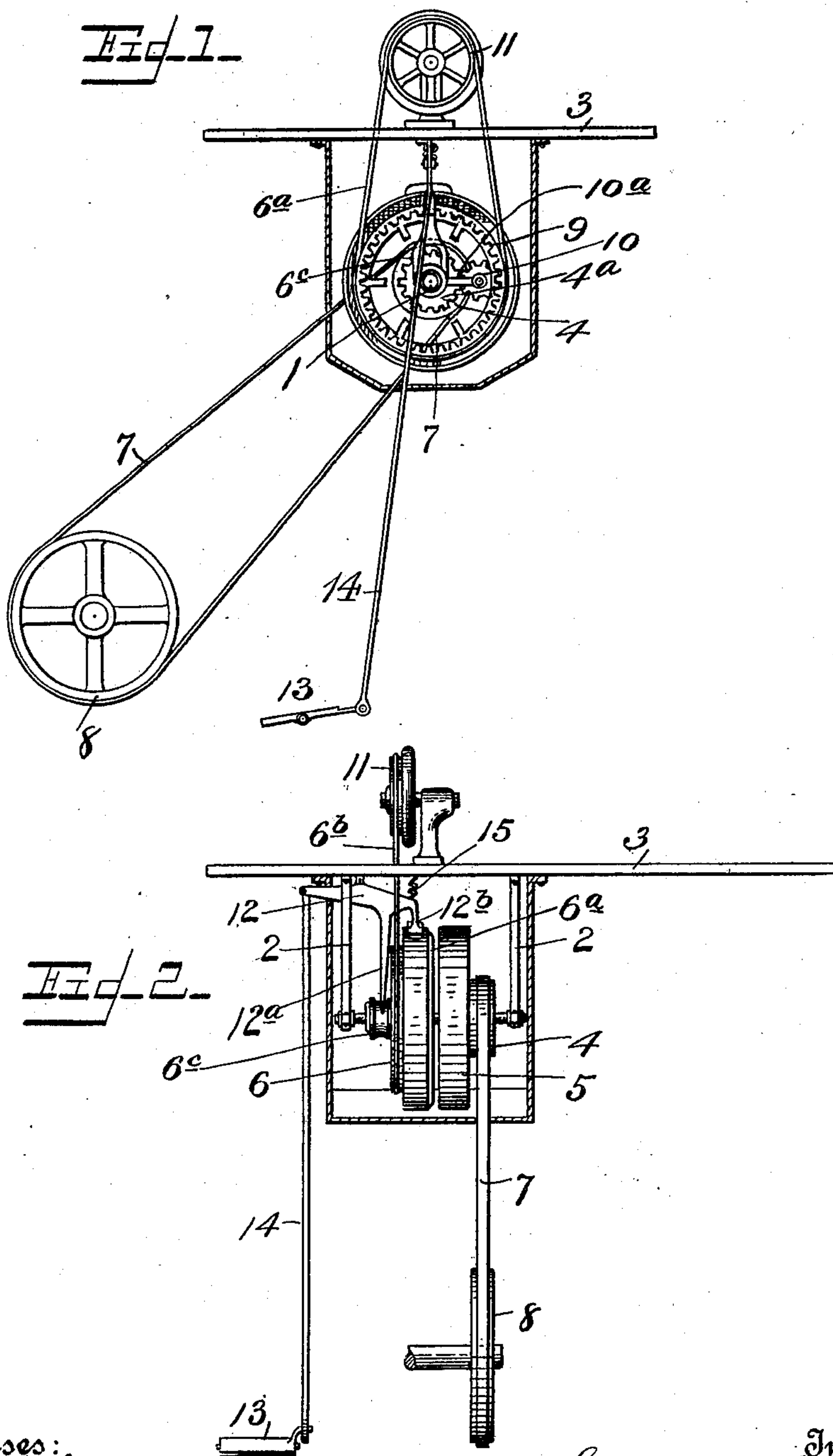
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S. T. SIMMONS & W. T. MOORE.

REVERSIBLE TRANSMITTER.

APPLICATION FILED NOV. 25, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL T. SIMMONS AND WALTER T. MOORE, OF COLUMBUS, OHIO.

REVERSIBLE TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 754,822, dated March 15, 1904.

Application filed November 25, 1903. Serial No. 182,661. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL T. SIMMONS and WALTER T. MOORE, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Reversible Transmitters, of which the following is a specification.

Our invention relates to improvements in mechanism for reversing motion for driving machinery without crossing the power-transmitting driving-belt.

Said invention consists of the combination of parts, including their construction and arrangement, substantially as hereinafter more fully disclosed, and specifically pointed out by the claims concluding the following specification.

In the accompanying drawings, illustrating the preferred embodiment of our invention, Figure 1 is a side elevation thereof with the casing or housing of the same produced in section; and Fig. 2 is a front elevation, also with said casing or housing shown in section.

In the carrying out of our invention we suitably suspend or secure a shaft 1 in a fixed position from hangers or pendants 2, secured to the under side of a support 3. Loosely journaled upon said shaft are a belt-pulley 4, a larger like wheel 5, and a correspondingly-diametere wheel or belt-pulley 6, more particularly described later, said first-referred-to pulley and wheel being held as against lateral movement by collars fixed upon said shaft. The pulley 4 is belted, as at 7, with the primary driving-pulley 8, carried by the shaft of the driving power or motor. (Not shown.) Said pulley 4 has concentrically fixed to it a pinion or toothed wheel 4^a, consequently unconnected with the shaft 1, and upon the inner circumference of a lateral rim or flange of pulley 5 is provided a circular series of teeth or cogs 9. With said pinion and circular series of cogs or teeth engages or meshes a small pinion or idler 10, carried by an arm 10^a, suitably supported in position, as shown. From this arrangement it will be noted that a reversed rotation will be transmitted from the belt-pulley 4 to the wheel 5, in turn communicated to the belt-pulley 6, as presently dis-

closed, and that without crossing the driving-belt. Said pulley 6 is provided laterally with a circular leather strip 6^a or other non-slipping or frictional material to provide for ready impingement or engagement laterally with the wheel 5 as the former is shipped into contact with the latter, as later explained. Said pulley 6 is suitably belted, as at 6^b, to a pulley 11, secured upon the shaft of the machinery to be driven.

A shipping-lever 12, suitably fulcrumed upon the under side of the support 3 and adapted to be actuated by a treadle 13, connected thereto by a pitman 14, has an arm or pendant 12^a, with its lower bifurcated end engaging a collar 6^c of the pulley 6 for effecting the shipment of the leather-faced surface of the last named into engagement or contact with the wheel 5, as above noted. Said shipping-lever has also extending beyond said arm or pendant a much shorter arm or pendant equipped with a shoe or brake 12^b, adapted to be normally engaged with the periphery of a lateral rim or flange 6^a of the belt-pulley 6 by the action of a spring 15. Consequently as said treadle is actuated by the foot, as in effecting the shipment of said pulley into contact with the wheel 5, said brake will be released from said pulley rim or flange and be unapplied when the said pulley and wheel are in action and applied when the former is separated from the latter and there is no transmission of motion or power.

Latitude is allowed herein as to details, as they may be changed without departing from the spirit of our invention and the latter yet be protected.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of a fixed shaft, a pinion, a driven pulley carrying said pinion, a wheel having an inward-facing series of cogs, an additional pinion intergeared with said pinion and cogs, a driving-pulley, and means for shipping the last named into engagement with said wheel, said pulleys and wheel being loose upon said shaft.

2. The combination of a fixed shaft, a pinion, a driven pulley carrying said pinion, a

5 wheel having an inward-facing series of cogs or teeth, an additional pinion intergeared with said cogs or teeth and pinion, a driving-pulley equipped with an impinging face for engagement with said wheel, and means for effecting the shipment of said driven pulley, said pulleys and wheel being loose upon said shaft.

10 3. The combination of a fixed shaft, a pinion, a driven pulley carrying said pinion, a wheel having an inward-facing series of cogs, an additional pinion intergeared with said cogs and pinion, a driving-pulley having a friction engaging face, and a shipping-lever
15 adapted to effect the shipment of the latter pulley into engagement with said wheel, said lever having an arm engaging a collar on said latter pulley, said pulley and wheel being loose upon said shaft.

4. The combination of a fixed shaft, a pin- 20 ion, a driven pulley carrying said pinion, a wheel having an inward-facing series of cogs, an additional pinion intergeared with the aforesaid pinion and cogs, a driving-pulley having an impinging face, a shipping-lever 25 adapted to be suitably actuated and having an arm engaging a collar on said driving-pulley, said lever also having a spring-pressed brake adapted to engage a lateral rim or flange of said driving-pulley. 30

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

SAMUEL T. SIMMONS.

WALTER T. MOORE.

Witnesses:

E. E. MOORE,

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