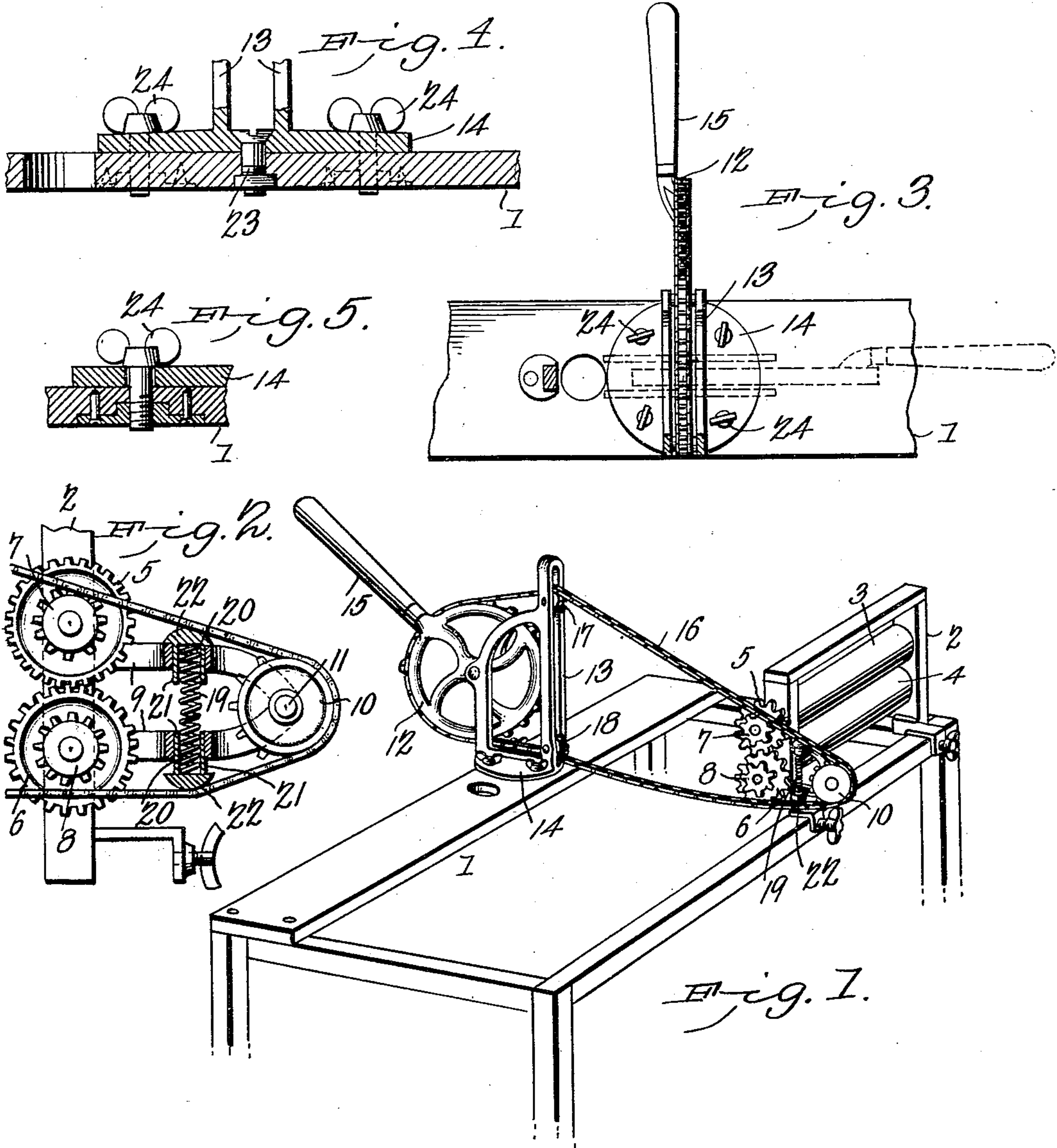


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M. HOLMAN.
MECHANICAL MOVEMENT.
APPLICATION FILED NOV. 6, 1902.

NO MODEL.



Witnesses
E. J. Stewart
L. J. Elmore

by *M. Holman,* Inventor.
C. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

MARIA HOLMAN, OF WAUKOMIS, OKLAHOMA TERRITORY.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 733,482, dated July 14, 1903.

Application filed November 6, 1902. Serial No. 130,323. (No model.)

To all whom it may concern:

Be it known that I, MARIA HOLMAN, a citizen of the United States, residing at Waukomis, in the county of Garfield and Territory of Oklahoma, have invented a new and useful Mechanical Movement, of which the following is a specification.

My invention relates to mechanical movements, and has for its object to provide a comparatively simple and inexpensive mechanism which will be efficient in operation and one in which a continuous rotary motion may be imparted to a driven wheel or shaft from a driving band or belt which operates with a reciprocatory motion.

To these ends the invention comprises in a mechanical movement the combination with a driven wheel, of a shaft operated thereby, a driving-belt having its flights arranged above and below the driven wheel in operative connection therewith, means for reciprocating the driving-belt, and means adapted to move the flights of the belt alternately out of operative connection with the driven wheel.

The invention further comprises the details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view showing my improved mechanism applied for driving a clothes-wringer. Fig. 2 is an enlarged sectional elevation illustrating the mechanism for actuating the wringer-rolls. Fig. 3 is a sectional plan view illustrating the oscillatory driving-wheel. Figs. 4 and 5 are detailed sectional elevations illustrating the manner of mounting the main bracket.

Referring to the drawings, 1 indicates a suitable framework, having mounted thereon the framework 2, which carries the wringer-rolls 3 and 4. These parts may be of any suitable or desired construction, inasmuch as they are entirely foreign to my invention and are merely employed herein to illustrate one of the various devices to which the present invention may be applied.

5 indicates a gear-wheel fixed on the shaft of the upper wringer-roll and adapted to intermesh with a similar gear 6, mounted on the shaft of the lower wringer-roll 4 and by which

the wringer-rolls are adapted to be driven in unison one from the other.

7 indicates a sprocket-pinion fixed on the shaft of the upper wringer-roll, and 8 a similar pinion fixed on the shaft of the lower wringer-roll. These sprocket-pinions may be formed integral with their respective gears 5 and 6 or they may be entirely independent thereof, as will be readily understood.

9 indicates a bracket, preferably secured to the wringer-frame and projecting horizontally therefrom in the form of two arms disposed vertically one above the other with their outer ends converging to a meeting-point, as clearly shown in Fig. 2.

10 is a guide-wheel, preferably provided with sprocket-teeth and mounted for rotation on a horizontal stud or the like 11, carried at the outer end of the bracket 9.

12 indicates a pulley or wheel mounted in suitable bearings in a vertical bracket 13, which is provided, preferably, with a horizontal base 14, adapted for attachment in the manner hereinafter described to the framework 1. The pulley or wheel 12 is provided with suitable sprocket-teeth and with an operating handle or lever 15, which in practice may be moved vertically up and down to impart a reciprocatory motion to the pulley and to a chain or belt 16 driven thereby. This band or belt is preferably in the form of a sprocket-chain, which extends from the driving-pulley 12 to the guide-pulley 10, with its upper flight arranged above the sprocket-pinion 7 and its lower flight beneath the sprocket-pinion 8. The flights of the chain are adapted to alternately engage and drive their respective pinions in the manner and for the purpose hereinafter described. The upper flight of the chain 16 overlies a guide 17, preferably in the form of a small sprocket-pinion journaled in the bracket 13, and the lower flight of the chain underlies a similar guide 18, also journaled in the bracket.

19 indicates a normally expanded spring vertically disposed and having its ends mounted in sockets 20, formed in the shanks 21 of suitable shoes 22, slidingly mounted in the arms of the bracket 9 and provided with suitable heads, which present smooth outer surfaces to and bear against the respective

upper and lower flights of the chain 16 for the purpose to be presently described.

The base 14 of bracket 13 is preferably in the form of a round metal disk and is centrally pivoted to the framework 1 by means of a pivoting-bolt 23 and is further held in place by means of thumb-screws 24, by the removal of which latter the bracket may be swung around on its central pivot to the position indicated in dotted lines in Fig. 3 when desired.

In the operation of the device, supposing the parts to be in the position illustrated in Fig. 1, the operator moves the handle 15 of the drive-wheel downward, which action causes the upper flight of chain 16 to tighten, thus compressing the spring 19 and permitting the said flight of the chain to engage the sprocket-pinion 7 to impart motion to the upper wringer-roll 3, the motion from which latter is transmitted, through the medium of the intermeshing gears 5 and 6, to the lower wringer-roll 4. When the handle 15 is moved upward, it will rotate the drive-wheel 12 in the opposite direction, tighten the lower flight of the chain, cause the same to compress spring 19 in the opposite direction, and permit the said lower flight of the chain to engage sprocket-pinion 8 and continue the movement of the lower wringer-roll 4 and through the medium of the intermeshing gears the motion of the upper wringer-roll. Thus it will be seen that by reciprocating the handle 15 a reciprocatory motion is imparted to the drive-wheel 12 and to the chain 16 and that this reciprocatory motion, owing to the upper and lower flights of the chain alternately engaging the pinions 7 and 8, imparts a rotary motion in one direction to the wringer-rolls. It is to be noted that the spring 19, being normally expanded, tends to force the flights of the chain out of engagement with the pinions. Consequently when one of the flights is tightened through the action of the drive-wheel it will compress the spring sufficiently for the chain to engage its pinion, and the other flight becoming slack by the same operation will be moved by the spring out of engagement with its pinion. Thus the spring will alternately move the respective flights of the chain out of engagement with the pinions 7 and 8.

From the foregoing description it will be seen that I produce a mechanism which is simple of construction and may be readily applied to any apparatus where it is desirable to impart a rotary motion to a single or plurality of driven shafts from a driving-wheel which has a reciprocatory motion, and in attaining this end I do not limit or confine myself to the precise details herein shown and described, inasmuch as various changes therein, such as would suggest themselves to the skilled mechanic, may be made without departing from the spirit or scope of my invention.

Having thus described my invention, what I claim is—

1. In a mechanical movement, the combination with a driven wheel, of a shaft operated thereby, a driving-belt having its flights arranged above and below the driven wheel in operative connection therewith, means for reciprocating the driving-belt, and means adapted to move the flights of the belt alternately out of operative connection with the driven wheel.

2. In a mechanical movement, the combination with a pair of driven shafts of intermeshing gears connecting the shafts, a driving-belt having its flights arranged respectively above and below the gear-wheels in operative connection therewith, means for reciprocating the driving-belt, and means adapted to move the flights alternately out of operative connection with the gear-wheels.

3. In a mechanical movement, the combination with a pair of driven shafts of intermeshing gears connecting the shafts, a driving-belt having its flights arranged respectively above and below the gear-wheels in operative connection therewith, means for reciprocating the driving-belt, and means adapted to automatically move the flights alternately out of operative connection with the gear-wheels.

4. In a mechanical movement, the combination with a pair of driven shafts of intermeshing gears connecting the shafts, a driving-belt having its flights arranged respectively above and below the gear-wheels in operative connection therewith, means for reciprocating the driving-belt, and a spring-actuated device adapted to automatically move the flights alternately out of operative connection with the gear-wheels.

5. In a mechanical movement, the combination with a pair of driven shafts of intermeshing gears connecting the shafts, a driving-belt having its flights arranged respectively above and below the gear-wheels in operative connection therewith and adapted to alternately drive the same, means for reciprocating the driving-belt, a spring interposed between the flights of the driving-belt, shoes engaging and actuated by the spring, to automatically move the respective flights alternately out of operative connection with the gear-wheels, and means for guiding the shoes.

6. In a mechanical movement, the combination with a pair of driven shafts of intermeshing gears connecting the shafts, a drive-wheel adapted to be oscillated, a driving-belt operated by the wheel and having its flights arranged respectively above and below the gear-wheels and adapted to alternately drive the same, and means adapted to move the flights alternately out of operative connection with the gear-wheels.

7. In a mechanical movement, the combination with a pair of driven shafts, of gearing connecting the shafts, sprocket-gears con-

5 nected with the said gearing, a sprocket-chain having its flights arranged respectively at opposite sides of the sprocket-wheels, an oscillatory operating device for driving the chain, and means for automatically moving the flights of the chain alternately out of engagement with their respective sprockets.

10 8. In a mechanical movement, the combination with a pair of driven shafts, of gearing connecting the shafts, sprocket-gears connected with the said gearing, a guide-wheel located beyond the sprocket-gears, a sprocket-chain mounted on the guide-wheel with its

flights arranged respectively at opposite sides of the sprocket-wheels in engagement there- 15 with, an oscillatory operating device for driving the chain, and means for moving the flights of the chain alternately out of engagement with their respective sprockets.

In testimony that I claim the foregoing as 20 my own I have hereto affixed my signature in the presence of two witnesses.

MARIA HOLMAN.

Witnesses:

M. O. GARRETT,
W. AUSTIN.