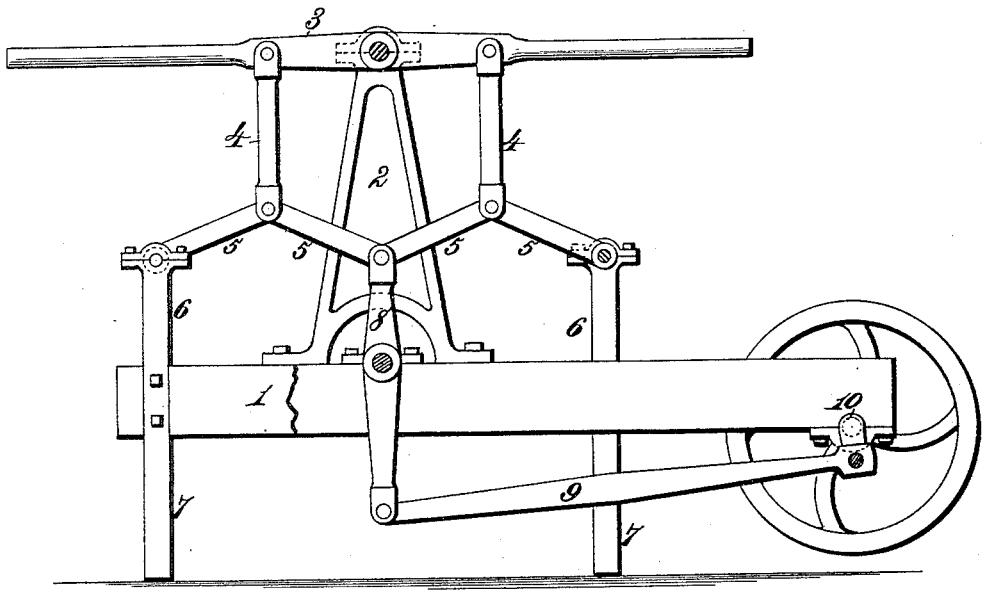
(No Model.)

J. M. WILLIAMS.

DEVICE FOR TRANSMITTING MOTION.

No. 419,092. Patented Jan. 7, 1890.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES M. WILLIAMS, OF HAWKINSVILLE, GEORGIA.

DEVICE FOR TRANSMITTING MOTION.

SPECIFICATION forming part of Letters Patent No. 419,092, dated January 7, 1890.

Application filed October 5, 1889. Serial No. 326,089. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. WILLIAMS, a citizen of the United States, residing at Hawkinsville, in the county of Pulaski and State of Georgia, have invented new and useful Improvements in Devices for Transmitting Motion, of which the following is a specification.

My invention relates to an improved hand-power or device for transmitting motion, the object being to provide a simple and efficient motive power for tricycles, corn-shellers, circular saws, feed-cutters, and other machines.

The invention consists in the construction and combination of parts hereinafter more fully described and claimed.

The annexed drawing represents a partly-sectional elevation of a motive-power apparatus embodying my invention.

Referring to the drawing, the numeral 1 designates a frame, to which standards 2 are attached. Between the upper ends of the standards 2 is pivoted a hand-lever 3, from which links 4 are suspended. The links 4 each connect with the jointed ends of a pair of toggle-levers 5, of which there are two pairs provided. The outer toggle-lever of each pair is pivoted between short standards 6, attached to the frame 1, as shown, and in the case of a corn-sheller, feed-cutter, or similar machine these standards may be extended down to form legs 7; or the apparatus may be provided with legs at other suitable points.

The inner ends of the toggle-levers 5 are connected to each other and to the upper end of a rocking lever 8, that is pivoted about midway its length in the frame 1, so as to oscillate freely. To the lower end of the rocking lever 8 is attached a pitman 9, that connects with a crank-shaft 10, to which may be connected the wheel, saw, cutter, or other device to be rotated.

By oscillating the hand-lever 3 the links 4 will alternately ascend and descend, so as to alternately bend and extend the toggle-levers 5, thereby rocking the lever 8 and causing the pitman 9 to impart a rotary movement to the crank-shaft.

While intended particularly for applying hand-power to propel tricycles and to operate feed-cutters, circular saws, corn-shellers, and like machines, it is obvious that these devices for transmitting motion can be applied in other situations.

When the apparatus is applied to a tricycle, the legs 7 will of course be omitted and boxes added. The apparatus can be conveniently used for driving machinery of various kinds.

The arrangement of two pairs of toggle-levers in connection with the rocking lever serves to impart a steady oscillation to said rocking lever, one pair of toggles pushing while the other draws, and so a uniform rotation of the crank-shaft is obtained through the pitman that connects said crank-shaft and rocking lever.

What I claim is—

1. In a hand-power, the combination of a frame, a rocking lever, two pairs of toggle-levers connected with the upper end of the rocking lever, a hand-lever, links connecting the hand-lever and toggle-levers, a crank-shaft, and a pitman connecting said crank-shaft with the lower end of the rocking lever, substantially as described.

2. In a hand-power, the combination of a frame provided with standards 2 and 6, the hand-lever 3, links 4, toggle-levers 5, rocking lever 8, pitman 9, and crank-shaft 10, substantially as described.

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

JAMES M. WILLIAMS.

Witnesses:
L. C. RYAN,
J. B. MITCHELL.