

No. 668,002.

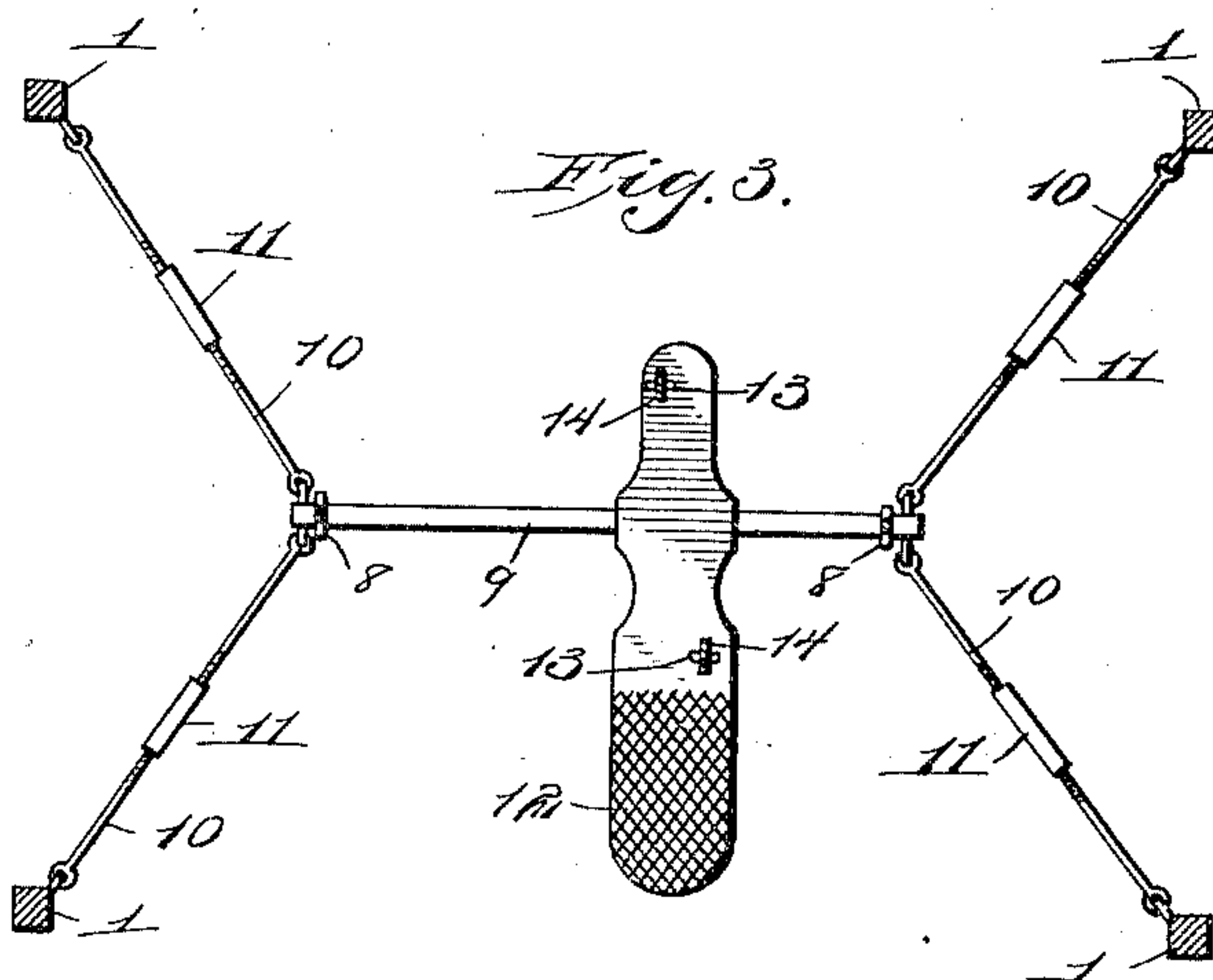
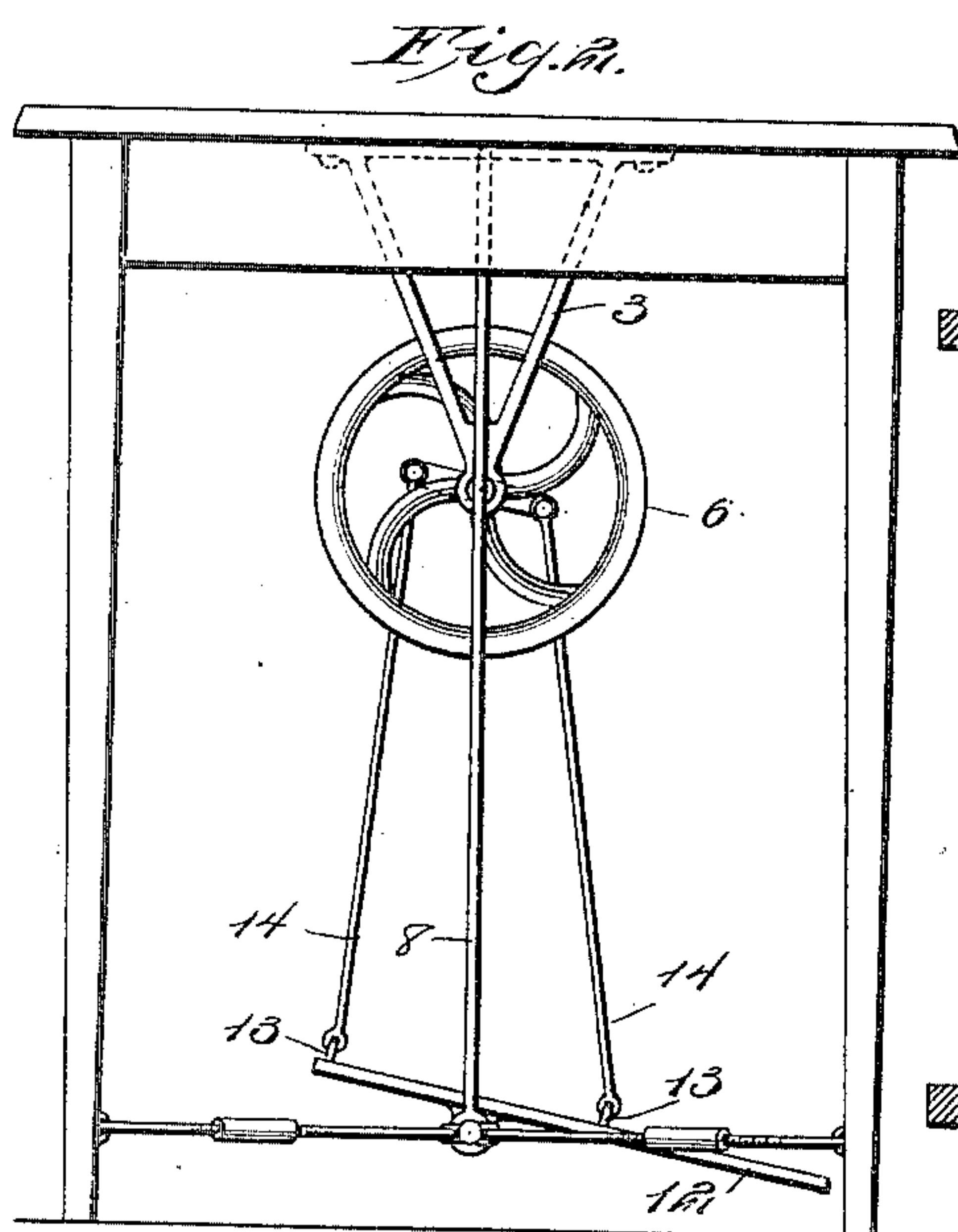
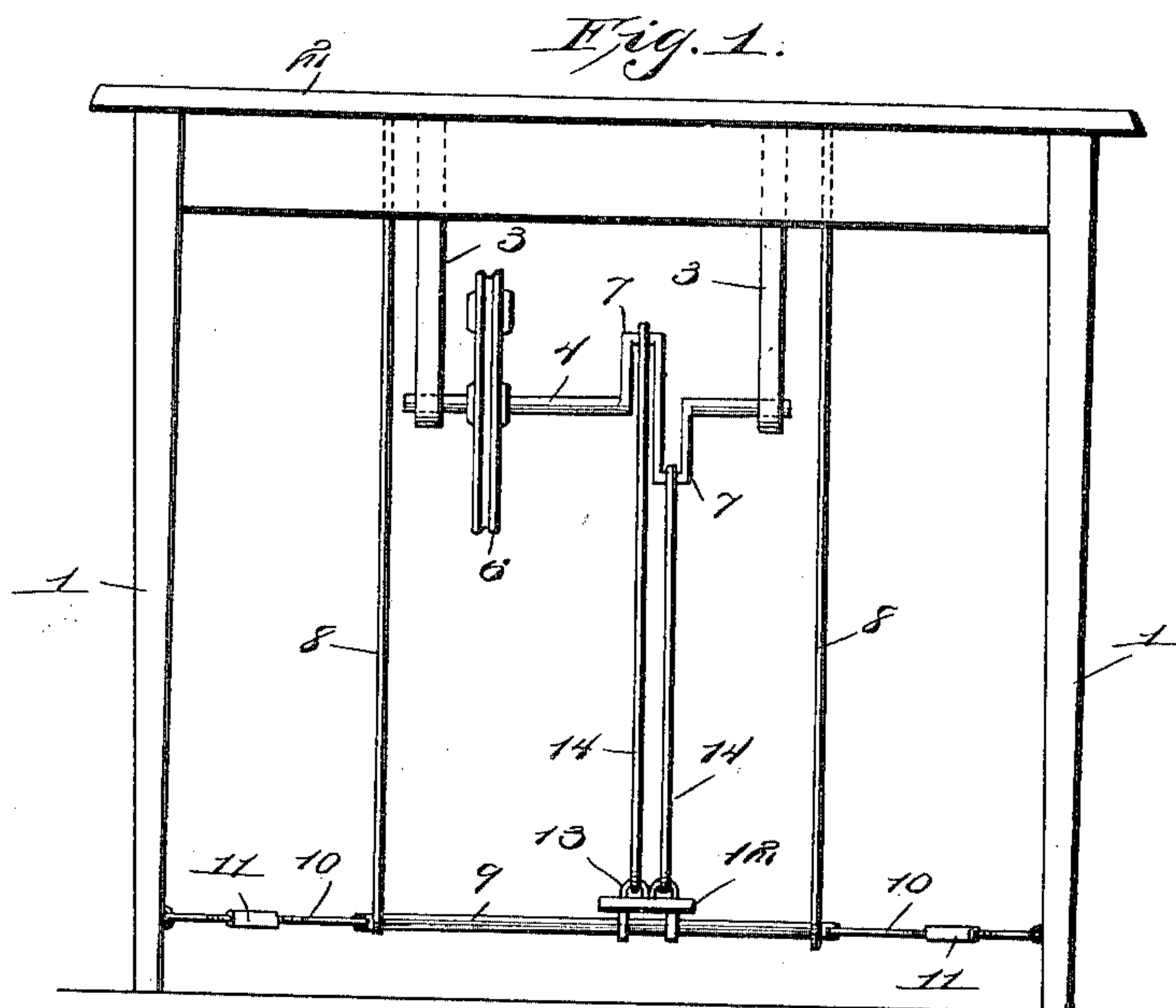
L. BERGER.  
MOTOR.

Patented Feb. 12, 1901.

(No Model.)

(Application filed June 27, 1900.)

2 Sheets—Sheet 1.



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*Herbert D. Lawson*

Inventor:  
*Leopold Berger.*  
By *Victor J. Evans* Attorney

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2 Sheets—Sheet 2.

Fig. 4.

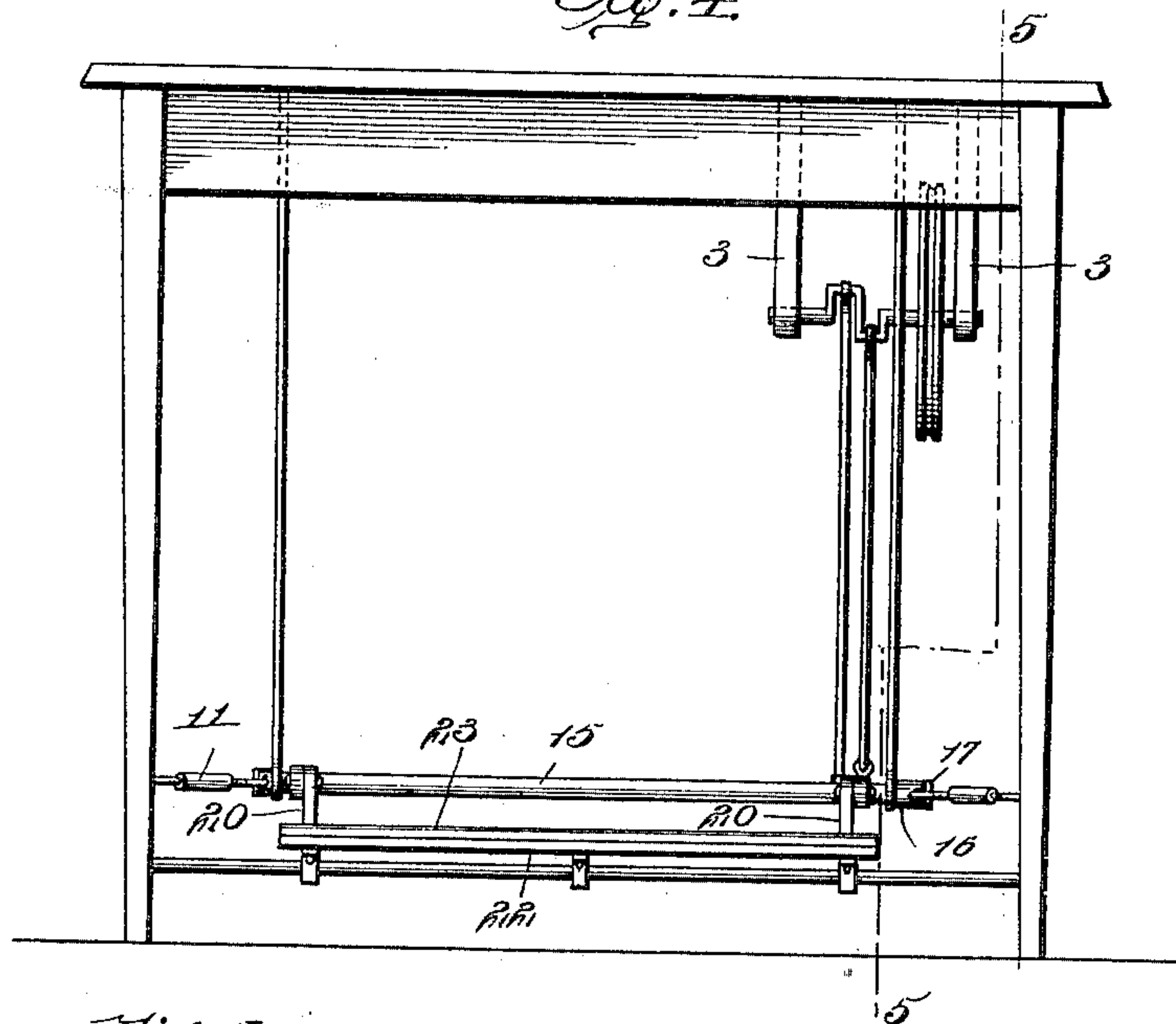


Fig. 5.

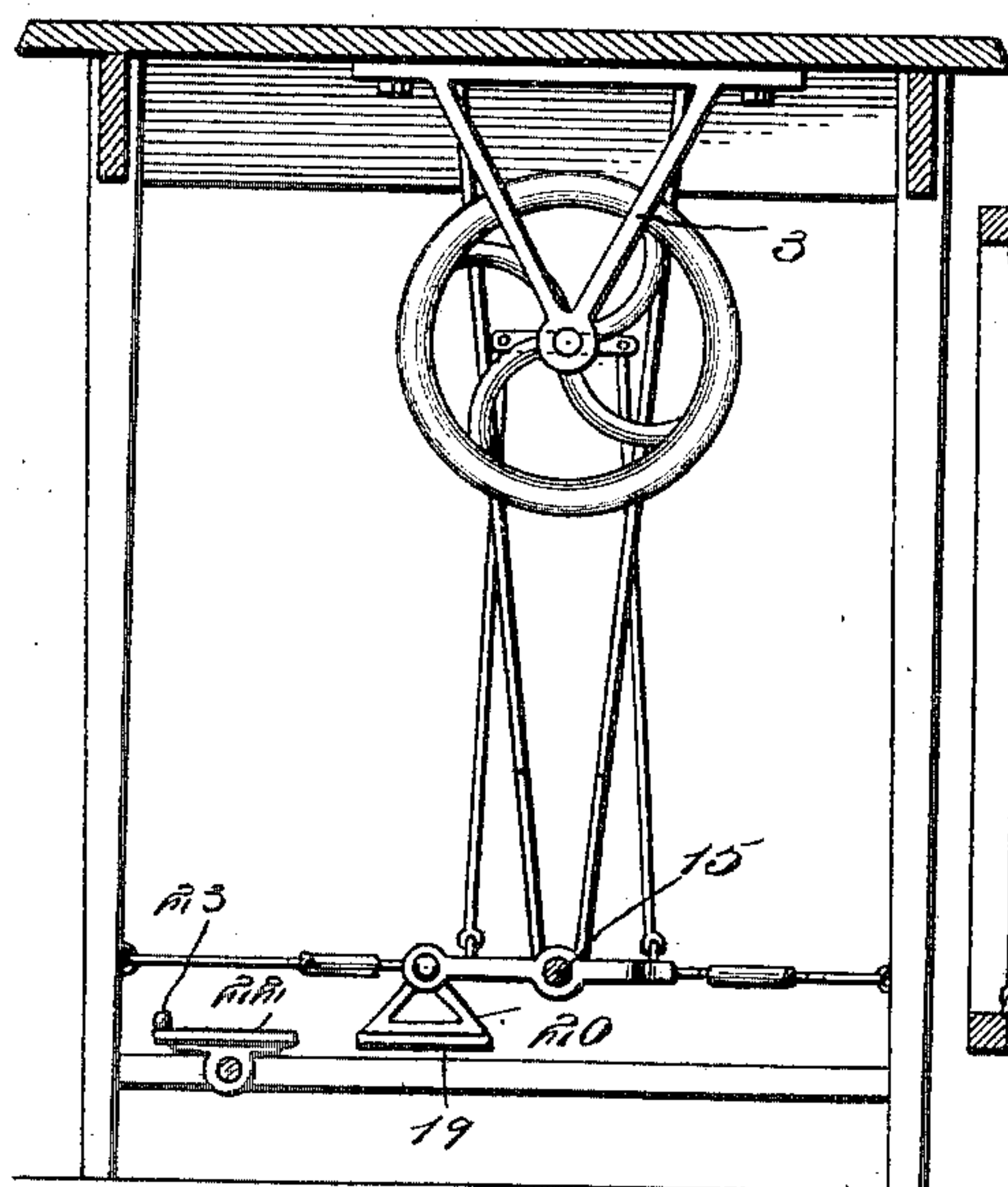
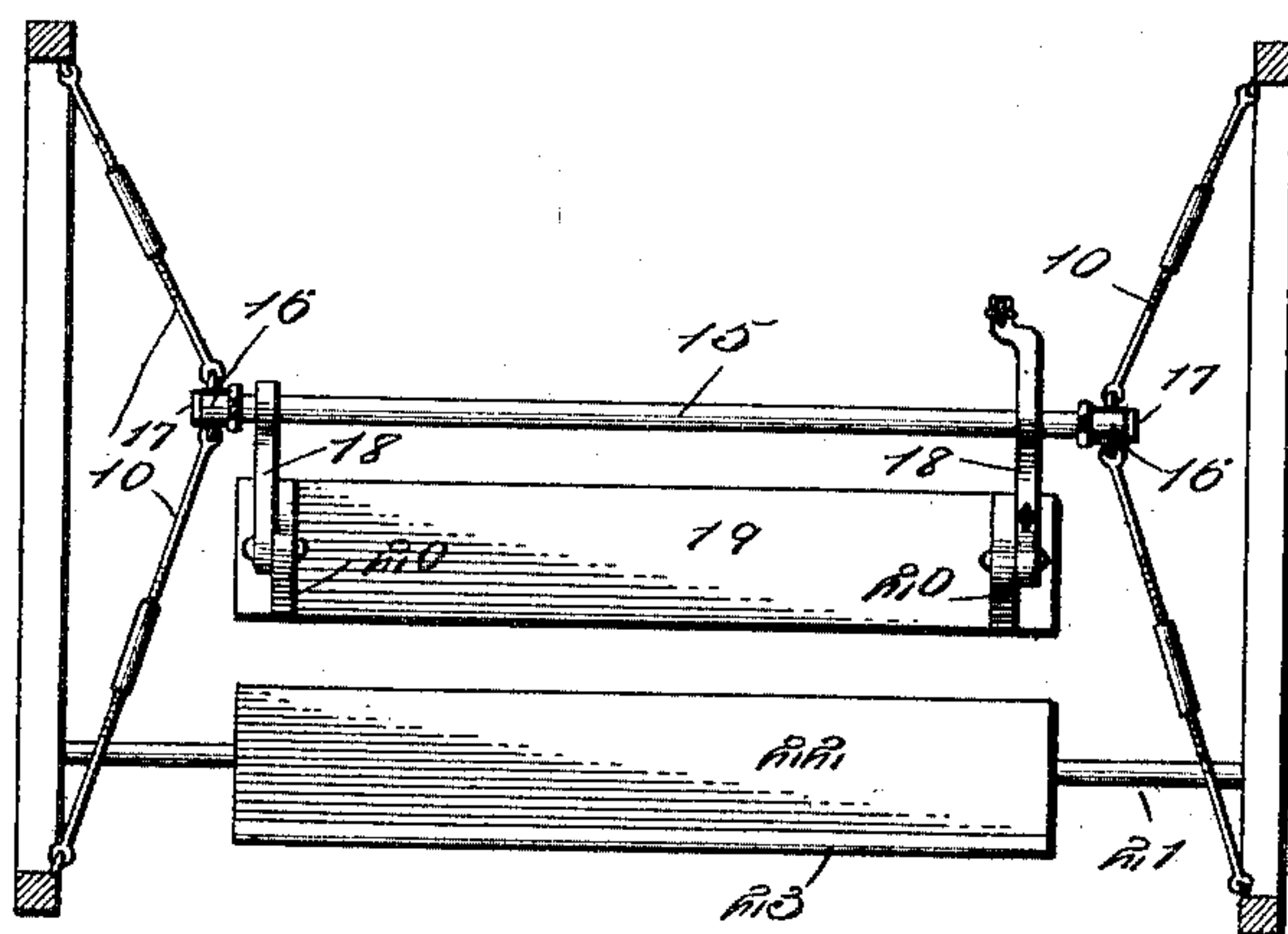


Fig. 6.



Witnesses  
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# UNITED STATES PATENT OFFICE.

LEOPOLD BERGER, OF SALT LAKE CITY, UTAH.

## MOTOR.

SPECIFICATION forming part of Letters Patent No. 668,002, dated February 12, 1901.

Application filed June 27, 1900. Serial No. 21,829. (No model.)

*To all whom it may concern:*

Be it known that I, LEOPOLD BERGER, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Motors, of which the following is a specification.

This invention relates to new and useful improvements in foot-motors; and its primary object is to provide a device of this character especially adapted for use on sewing-machines and similar machines which are propelled by foot-power and whereby the motion of the foot is reduced to the minimum.

To this end the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a front elevation thereof. Fig. 2 is a side elevation. Fig. 3 is a plan view of the treadle and its supports. Fig. 4 is a front elevation of a modified form of the device. Fig. 5 is a section therethrough, and Fig. 6 is a plan view of the treadle and its support.

Referring to said figures by numerals of reference, 1 1 are standards connected by a suitable top 2, from which are suspended hangers 3, within which is journaled a shaft 4, having a weighted wheel or pulley 6 secured thereto and also provided with a double crank 7, as shown. Rods 8 extend downward from the top and are secured at their lower ends to a strip 9, connected at each end by wires or rods 10 with the adjacent standards 1. These rods may be provided with suitable tightening means, as the turn-knuckles 11. A treadle 12 is journaled upon the strip 9 and is provided with an eye 13 at each side of its bearing. Within each eye is mounted the end of a rod 14, which extends upward to one of the cranks 7, as shown.

In Figs. 4, 5, and 6 I have shown a modified form of device in which the strip 15 is journaled in boxes 16, to which the brace-wires 10 are fastened. Suitable collars, as 17, are secured to the strip 15 to prevent lateral movement thereof. Arms 18 are secured to and extend outward from the strip 15, and a treadle

19 is suspended therefrom by means of pivoted hangers or brackets 20. One of these arms extends to the rear of the strip and is secured to the cranks 7 in a manner similar to treadle 12. A strip, as 21, is connected to the standards 1, and a treadle 22 is journaled thereon, as shown, said treadle being provided with a flange 23 upon its upper surface, as shown.

The operation of the device disclosed in Figs. 1, 2, and 3 will be readily understood. By bearing upon the treadle 12 the two cranks 7 will receive power through the rods 14, and the weight upon the wheel will give a steady movement thereto and overcome all dead centers.

In the construction shown in the modification the heel of the foot is placed on treadle 22 and the front of the foot upon treadle 19, thereby permitting an easy movement of the foot with the utilization of the minimum amount of power.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

1. The combination with standards and a top connecting the same; of a double crank-hinge hung from said top; a strip suspended therefrom; brace-rods connecting the strip and standards; a pivoted lever upon the strip; and rods secured to the lever at opposite sides of its pivot and to the cranks.

2. The combination with standards and a top; of a double crank suspended from said top; strips; wires supporting said strips from the top; brace-wires connecting the strips and standards; pivoted levers upon the strips; rods secured to one of the levers at opposite sides of its pivot and to the cranks; and a treadle suspended between and from said levers.

3. The combination with standards and a

top; of a double crank suspended from the  
top; strips; hanging rods connecting said  
strips with the top; braces connecting the  
strips and standards; pivoted levers upon the  
5 strips; rods connected to the cranks; and to  
one of the levers at opposite sides of its pivot;  
a treadle pivotally supported from said le-  
vers; a second strip secured to the standards;

and a treadle mounted upon said strips adja-  
cent to the treadle of the levers. 10

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

LEOPOLD BERGER.

Witnesses:

A. W. KAHLERT,  
MARGARET WAGONER.