

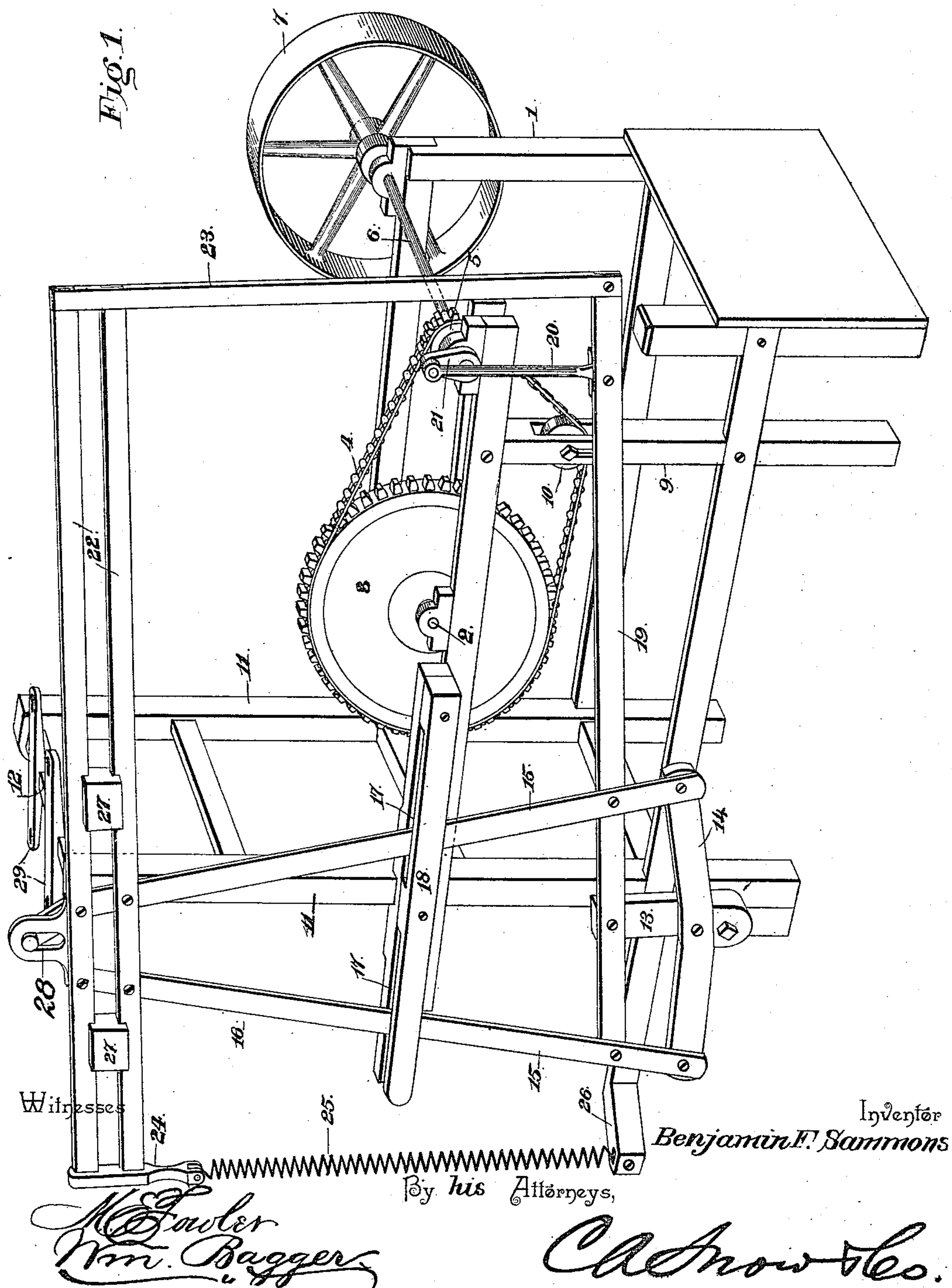
(No Model.)

2 Sheets—Sheet 1.

B. F. SAMMONS.
DEVICE FOR TRANSMITTING MOTION.

No. 440,851.

Patented Nov. 18, 1890.



(No Model.)

2 Sheets—Sheet 2.

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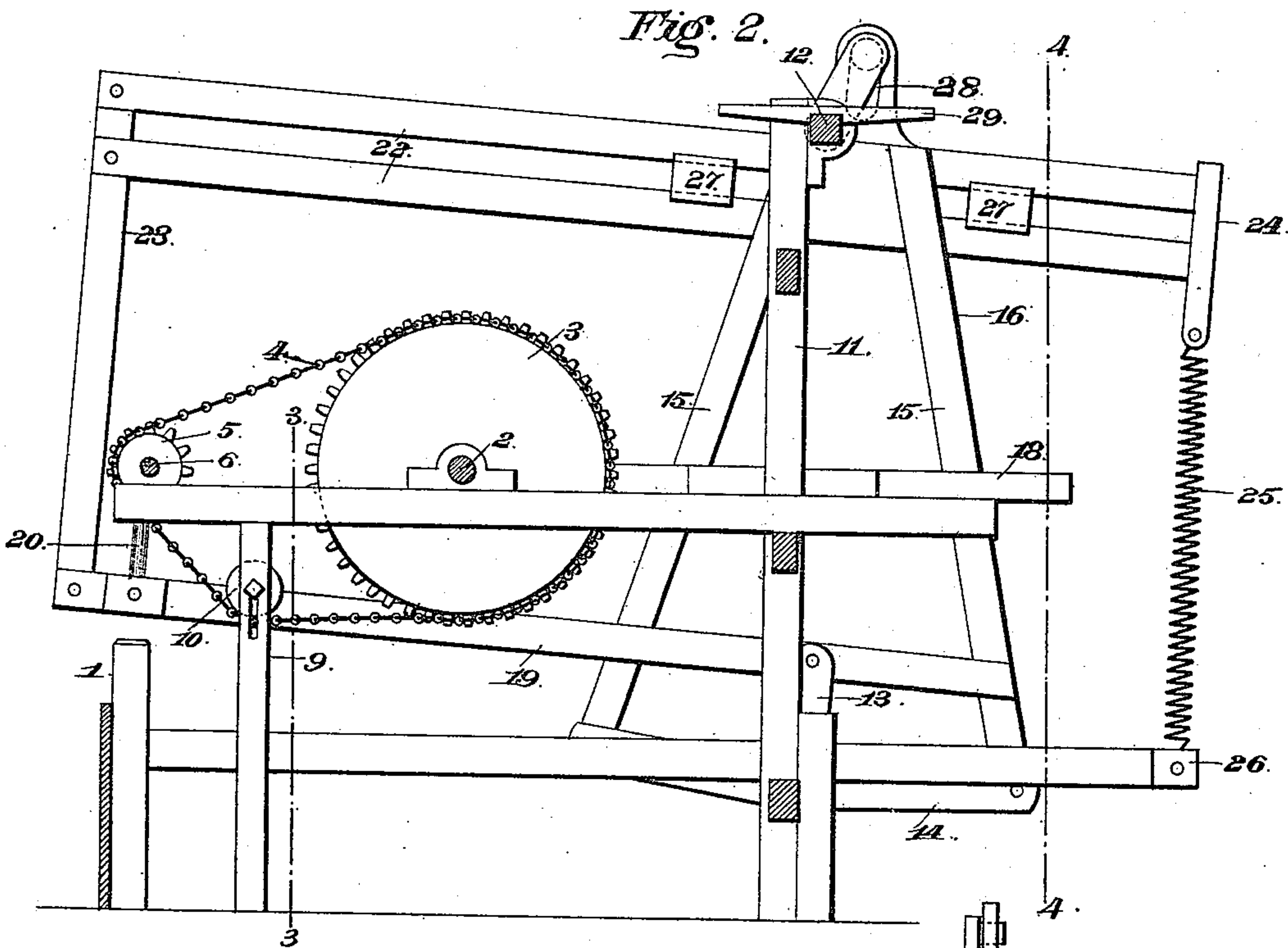


Fig. 3.

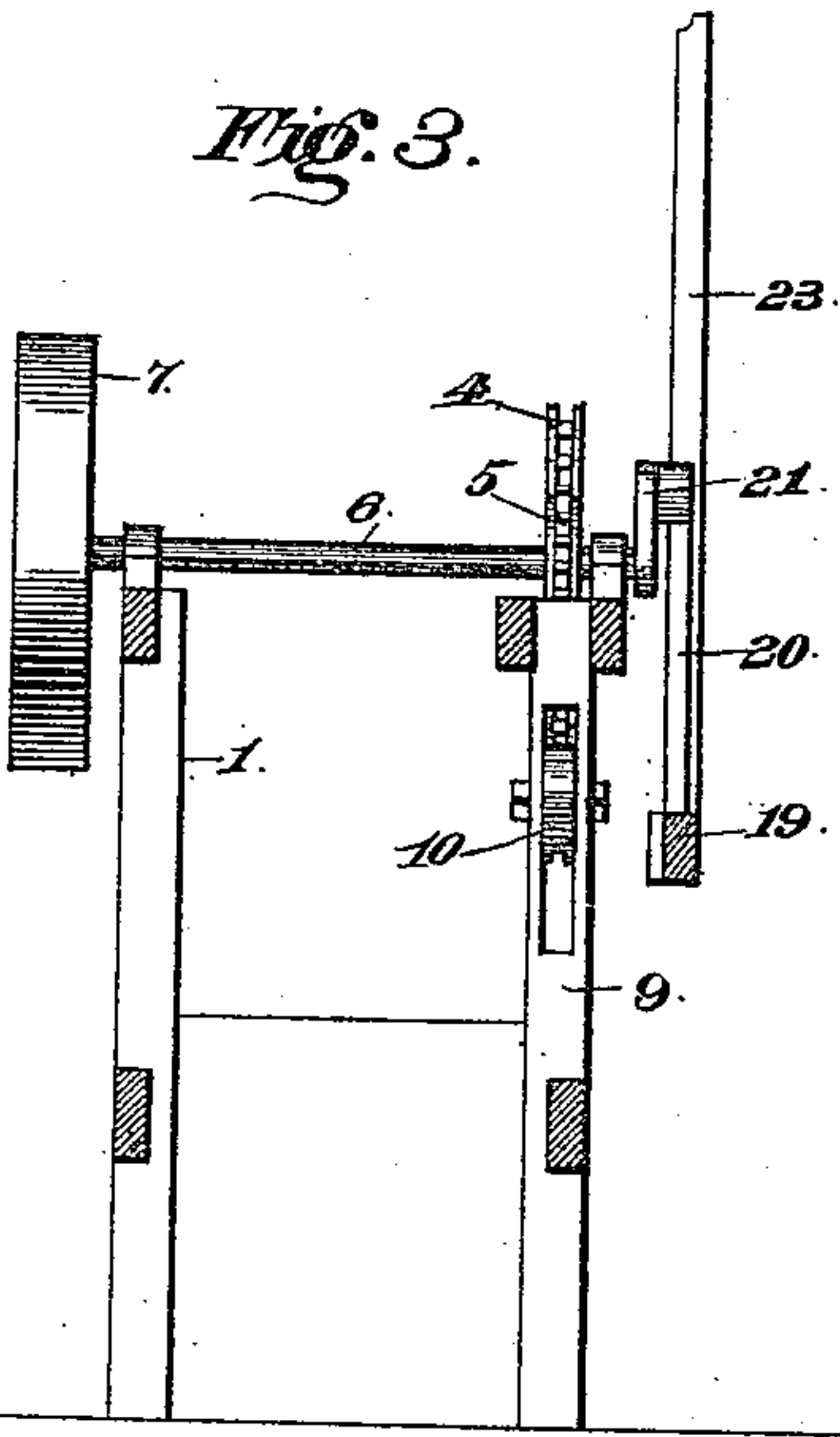
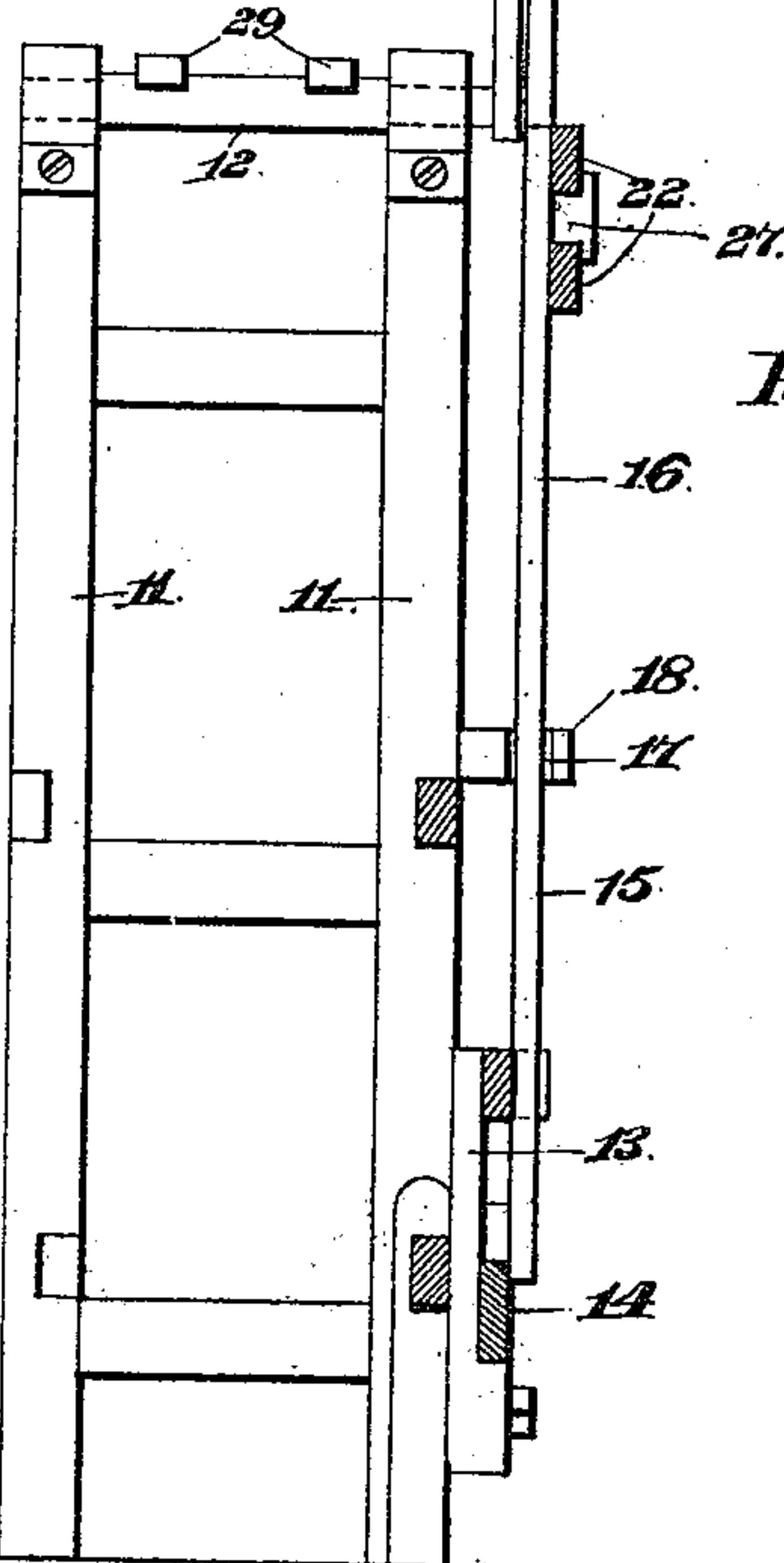


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

BENJAMIN F. SAMMONS, OF AVALON, MISSOURI.

DEVICE FOR TRANSMITTING MOTION.

SPECIFICATION forming part of Letters Patent No. 440,851, dated November 18, 1890.

Application filed June 4, 1890. Serial No. 354,258. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. SAMMONS, a citizen of the United States, residing at Avalon, in the county of Livingston and State of Missouri, have invented a new and useful Device for Transmitting Motion, of which the following is a specification.

This invention relates to devices for transmitting, balancing, and equalizing motion; and it has for its object to construct a device by means of which power may be transmitted from any suitable source in a convenient and effective manner to the machinery that is to be driven, and by means of which such power may be equalized and regulated. The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of a machine embodying my improvements. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a transverse sectional view taken on the line 4 4 in Fig. 2.

Like numerals of reference indicate like parts in all the figures.

1 designates the frame of the machine, which is provided with bearings for the main shaft 2, which receives its motion direct from the source of power. The main shaft carries a large sprocket-wheel 3, which is connected by means of a chain 4 with a smaller sprocket-wheel 5 upon a counter-shaft 6. The latter is provided with a drum or band-wheel 7, from which motion may be transmitted by means of a belt or band to the machinery which is to be driven. An upright or stand-ard 9, which forms a part of the frame, is provided with bearings for a vertically-adjustable idler 10, by means of which the tension of the chain 4 may be regulated. The end of the frame opposite to the end having the counter-shaft 6 is provided with uprights 11, the upper ends of which have bearings for a rock-shaft 12. To the lower part of the frame is pivoted an arm 13, having a cross-bar 14, to the ends of which are secured a pair of upwardly-extending converging arms 15, forming an inverted-V-shaped frame 16. The arms 15 of said frame are guided in slots 17

in the guide-bars 18, which are secured to the frame of the machine.

19 designates a lever, which is secured to the arms 15 near the lower ends of the same, and the free end of said lever is connected by a pitman 20 with a crank 21 upon the counter-shaft 6. Secured to the arms 15 of the V-shaped frame 16, near the upper end of the same and parallel to the lever 19, are a pair of guide-arms 22. The rear ends of the latter are connected by a brace 23 with the rear end of the lever 19, and the front ends of said guide-arms are connected by a vertical brace 24, the lower end of which is connected by a spring 25 with a bracket 26, extending forwardly from the frame of the machine. Between the guide-arms 22 on opposite sides of the frame 16 are mounted the longitudinally-grooved weights 27, which may be adjusted to any desired position for the purpose of regulating and governing the movement of the machine according to the distance from the fulcrum or pivoting-point of the frame 16 at which they may be adjusted.

The upper end of the frame 16 is provided with a slot 28, which may be connected with an arm or crank extending from the rock-shaft 12, to which latter motion may thus be communicated. Said rock-shaft is provided with outwardly-extending arms 29, which, when desired, may be connected by pitmen with machinery to be driven.

In operation, motion is transmitted from the source of power direct to the shaft 2. The source of power may be of any desired nature; but my invention is especially intended to be operated in connection with water-wheels, for the purpose of controlling and equalizing the power derived therefrom. The power is transmitted from the main shaft to the counter-shaft 6, and thence to the machinery which is to be driven, and the power may be equalized and regulated, as will be readily understood, by properly adjusting the weights 27. The spring 25 serves as a retracting and balancing spring. Power may be transmitted from the rock-shaft 12 to suitable pumping machinery to aid in supplying water to the water-wheel when such is used as a motive power.

The general construction of my invention is simple and inexpensive, and it will be found

exceedingly useful and convenient for the purposes indicated.

Having thus described my invention, what I claim is—

- 5 1. In a device for transmitting motion, the combination, with a suitable frame, of a main shaft and a counter-shaft, sprocket-wheels upon the said shafts, a chain connecting the said sprocket-wheels, an inverted-V-shaped
10 frame provided at its lower end with a cross-bar secured to an arm pivoted to the frame, a lever secured to the V-shaped frame, a pitman connecting said lever with a crank upon the counter-shaft, a pair of guide-arms se-
15 cured to the upper end of the V-shaped frame parallel to the said lever, a brace connecting the rear end of the latter with the rear ends of the guide-arms, a brace connecting the front ends of the guide-arms, a spring con-
20 necting said brace with a bracket extending from the supporting-frame, and weights mounted adjustably between the guide-arms on opposite sides of the V-shaped frame, substantially as and for the purpose set forth.
- 25 2. In a device for transmitting motion, the combination of a main shaft, a counter-shaft driven by a chain from said main shaft, an inverted-V-shaped frame connected pivotally to the supporting-frame, a lever secured to
30 said V-shaped frame and connected by a pitman with the crank upon the counter-shaft, a pair of guide-arms secured to the upper end

of the V-shaped frame, a spring connecting the front ends of said guide-arms with a bracket extending from the supporting-frame, 35 a rock-shaft mounted in uprights extending upwardly from the main frame, and having a crank connected with the upper end of the pivoted V-shaped frame, arms or brackets extending from said rock-shaft and adapted to 40 be connected by pitmen with machinery to be driven, and weights mounted adjustably between the guide-arms, substantially as set forth.

3. In a device for transmitting motion, con- 45 structed substantially as described, the combination, with the supporting-frame, of an inverted-V-shaped frame connected pivotally to the same and driven from a counter-shaft that receives motion from the main shaft, 50 guide-arms secured to said pivoted frame, weights mounted adjustably between said guide-arms, and bars secured to the supporting-frame and having slots to guide the pivoted inverted-V-shaped frame, substantially 55 as set forth.

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

BNJ. F. SAMMONS.

Witnesses:

R. T. MILLER,
MARTIN KAPP.