

No. 671,330.

Patented Apr. 2, 1901.

F. CLEMENS, JR.  
POWER TRANSMITTING DEVICE.

(Application filed Sept. 26, 1900.)

(No Model.)

Fig 1

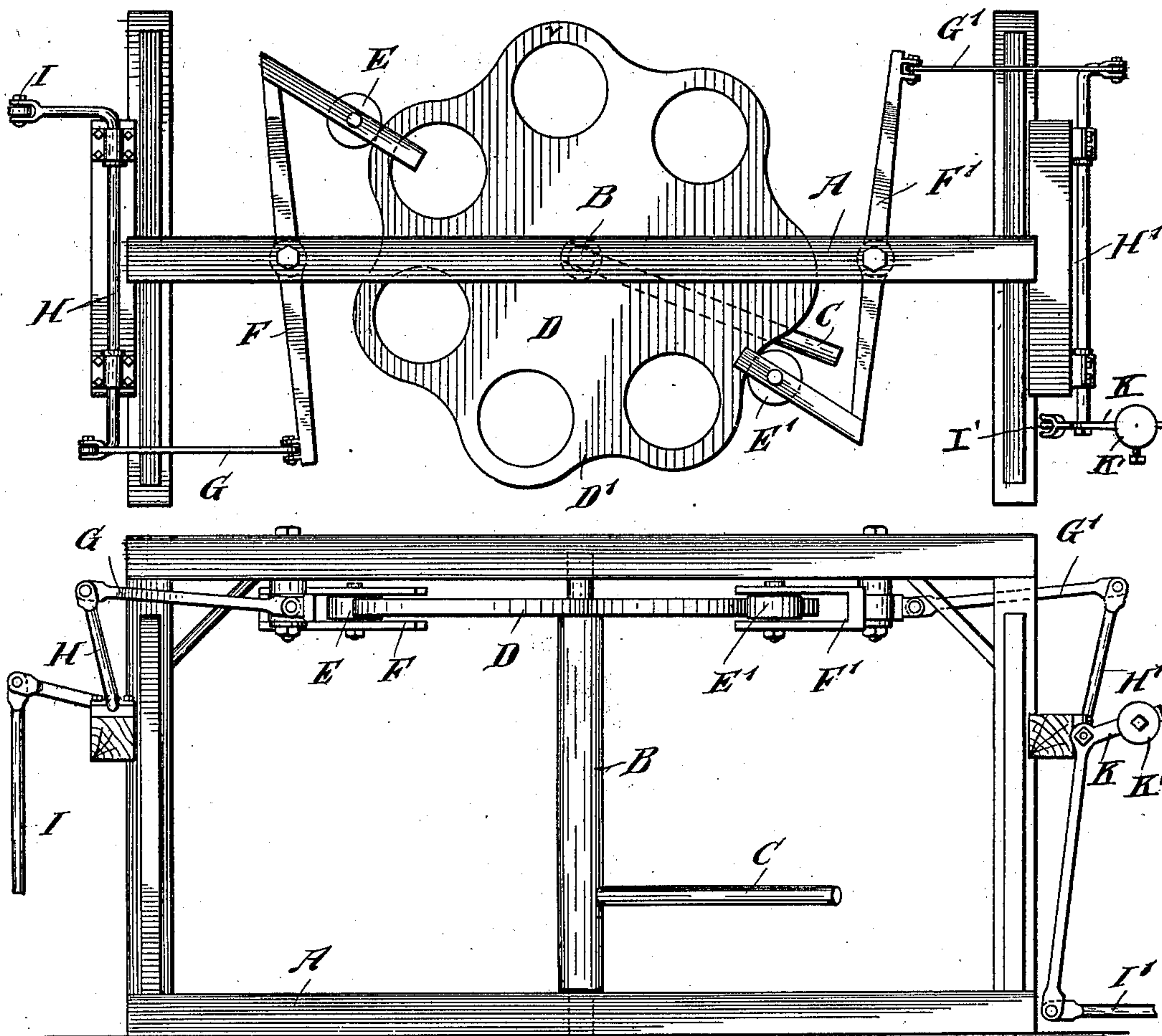


Fig 2

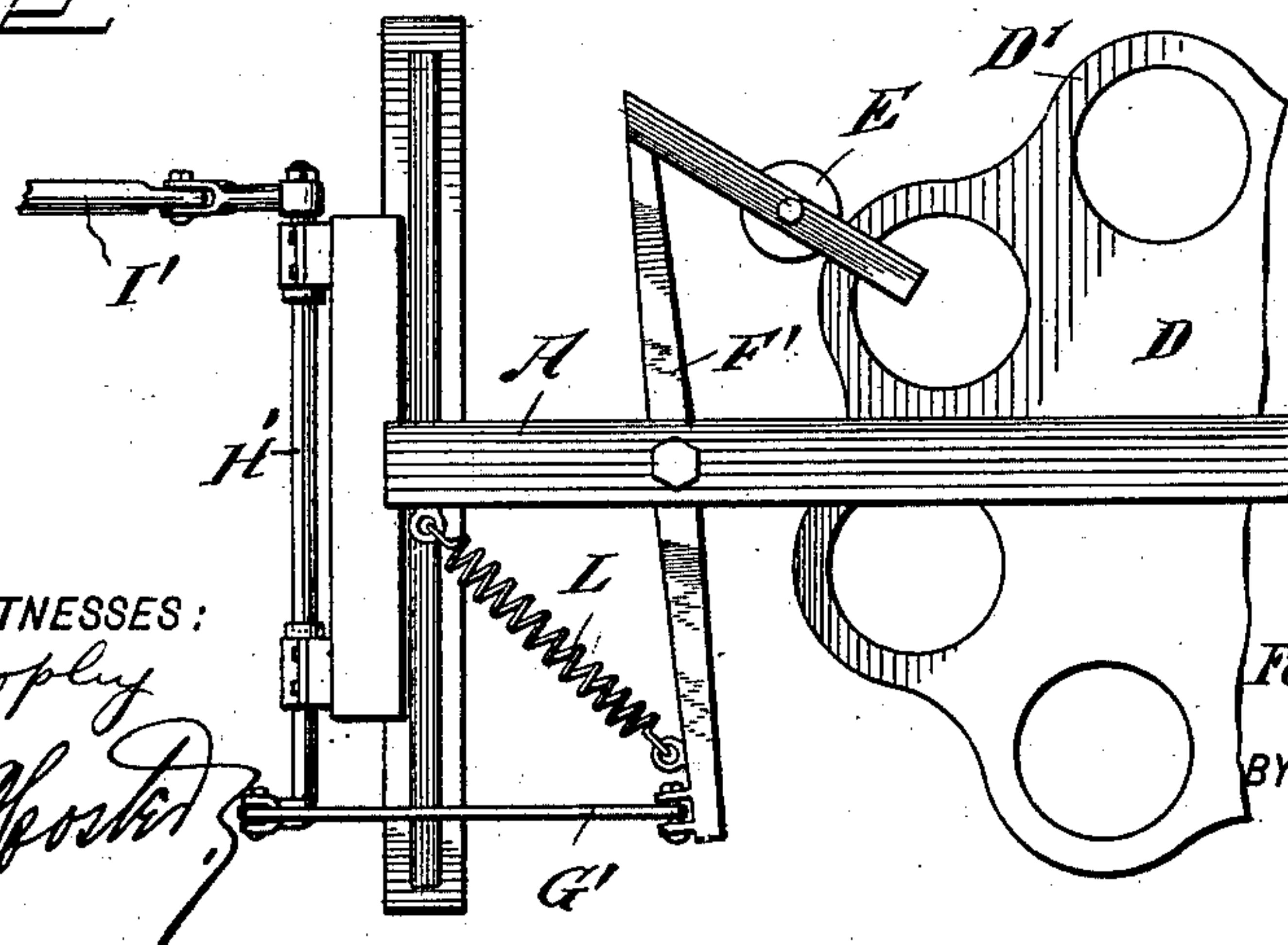


Fig 3

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# UNITED STATES PATENT OFFICE.

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## POWER-TRANSMITTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 671,330, dated April 2, 1901.

Application filed September 26, 1900. Serial No. 31,138. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND CLEMENS, Jr., a citizen of the United States, and a resident of Delta, in the county of Keokuk and State of Iowa, have invented a new and Improved Power-Transmitting Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved power-transmitting device more especially designed for operating pumps, saws, washing-machines, churns, or other machines and devices, the device being simple and durable in construction and very effective in operation.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation of the same, and Fig. 3 is a plan view of a modified form of the counterbalancing device employed when the device is used for actuating a single machine.

The improved mechanical device is mounted on a suitably-constructed frame A, in which is journaled a vertically-disposed shaft B, carrying a sweep C for attachment to an animal to pull the sweep around, so as to rotate the shaft B. Near the upper end of the shaft is secured an operating-wheel D, having a scalloped periphery D' engaged by antifriction-rollers E E', journaled in levers F F', respectively, fulcrumed on the main frame A. The scallops are preferably of an uneven number, and the antifriction-rollers E E' are disposed diametrically opposite each other on the peripheral surface of the wheel D, so that when one antifriction-roller is in an outermost position the other antifriction-roller is in an innermost position, as will be readily understood by reference to Fig. 1.

The levers F F' are connected by links G G' with levers H H', respectively, of which

the lever H is preferably a bell-crank lever, as shown, and is connected with the pump-rod I of a pump, so that when the wheel D is rotated an upward-sliding movement is given to the plunger in the pump-cylinder by the action of the scallops on the antifriction-roller E, the downward stroke of the plunger being caused by the weight of the plunger and the pump-rod and the column of water standing on the top of said plunger. The other lever H' is connected at its lower end by a link I' with a drag-saw or the like, so that when the wheel D is rotated a reciprocating movement is given to the drag-saw.

Although the device is described for operating a pump and a drag-saw, it is evident that other suitable machinery may be driven by it.

In case the pump only is to be operated then a counterbalancing-lever K, with an adjustable weight K', is attached to the lever H', so as to force the antifriction-wheel E' into engagement with the cam-wheel D with such pressure as to prevent the wheel D from being turned when the antifriction-wheel E engages the incline of a scallop of said cam-wheel, thus avoiding a sudden and quick forward turning of the shaft B and a consequent quick forward movement of the sweep C. It is evident that if the latter were to take place the sweep would be liable to injure the horses or other animals attached to the sweep.

Instead of counterbalancing the device, as described, by a weighted lever a spring L may be attached to the lever F', as indicated in Fig. 3.

The device is very simple and durable in construction, is not liable to get out of order, and can be readily actuated to drive various kinds of machinery.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A power-transmitting device, comprising a driven wheel having a scalloped periphery, sets of levers and links, each lever carrying an antifriction-roller arranged to travel on the peripheral surface of the wheel and the links being connected with the levers, sets of actuating-levers connected with the ma-

chinery to be driven and engaged by said links, and a counterbalancing device for one of the said levers, as set forth.

2. A power-transmitting device, consisting  
5 of a driven wheel having a scalloped periphery, sets of levers and links, each lever carrying an antifriction-roller arranged to travel on the peripheral surface of the wheel, and the links being connected with the levers, sets  
10 of actuating-levers to which the links are pivoted and with which the machine to be

driven is connected, a lever secured to one of the actuating-levers, and an adjustable weight on said lever, substantially as described.

In testimony whereof I have signed my  
15 name to this specification in the presence of two subscribing witnesses.

FERDINAND CLEMENS, JR.

Witnesses:

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W. N. BROWN.