

No. 769,006.

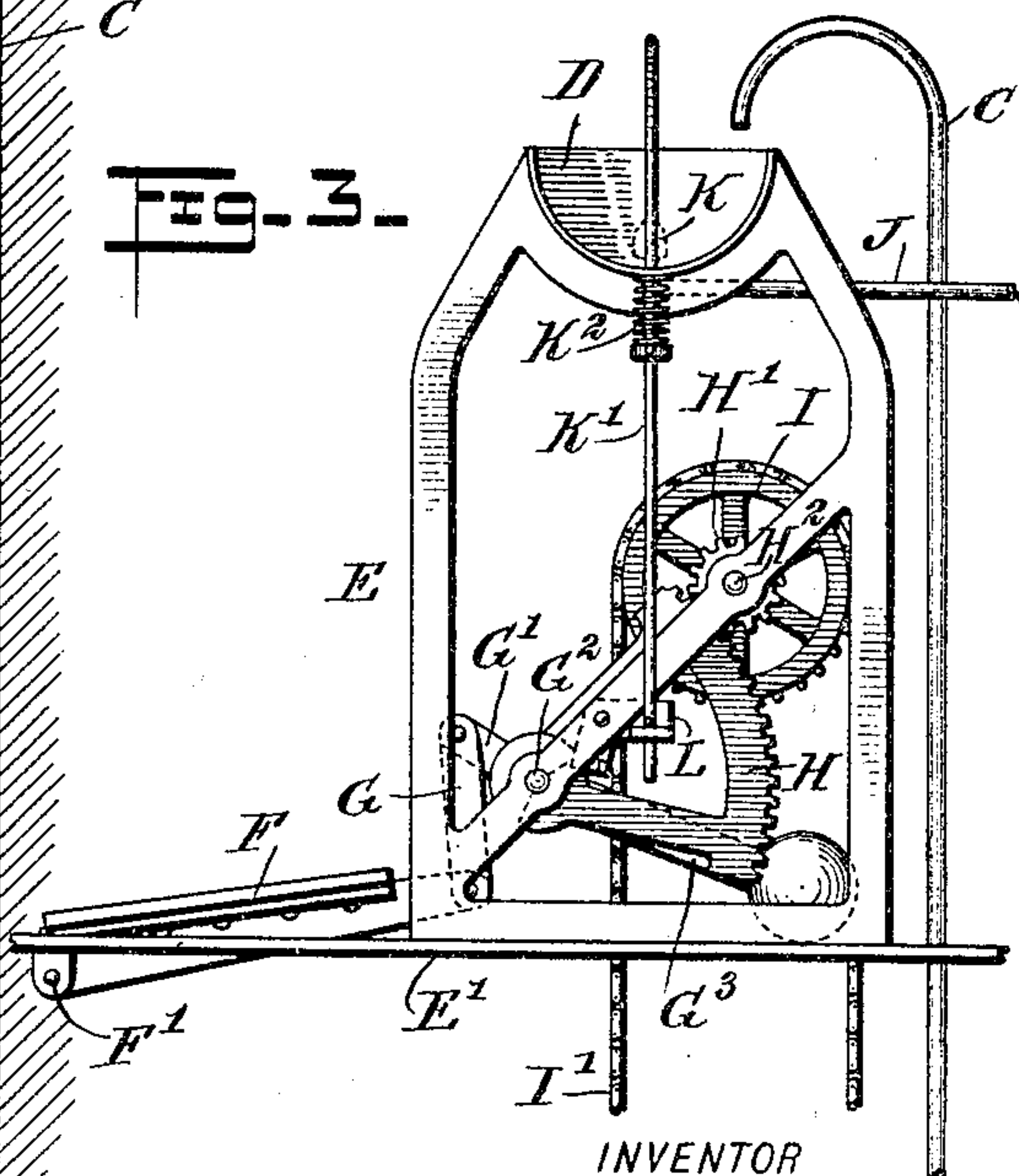
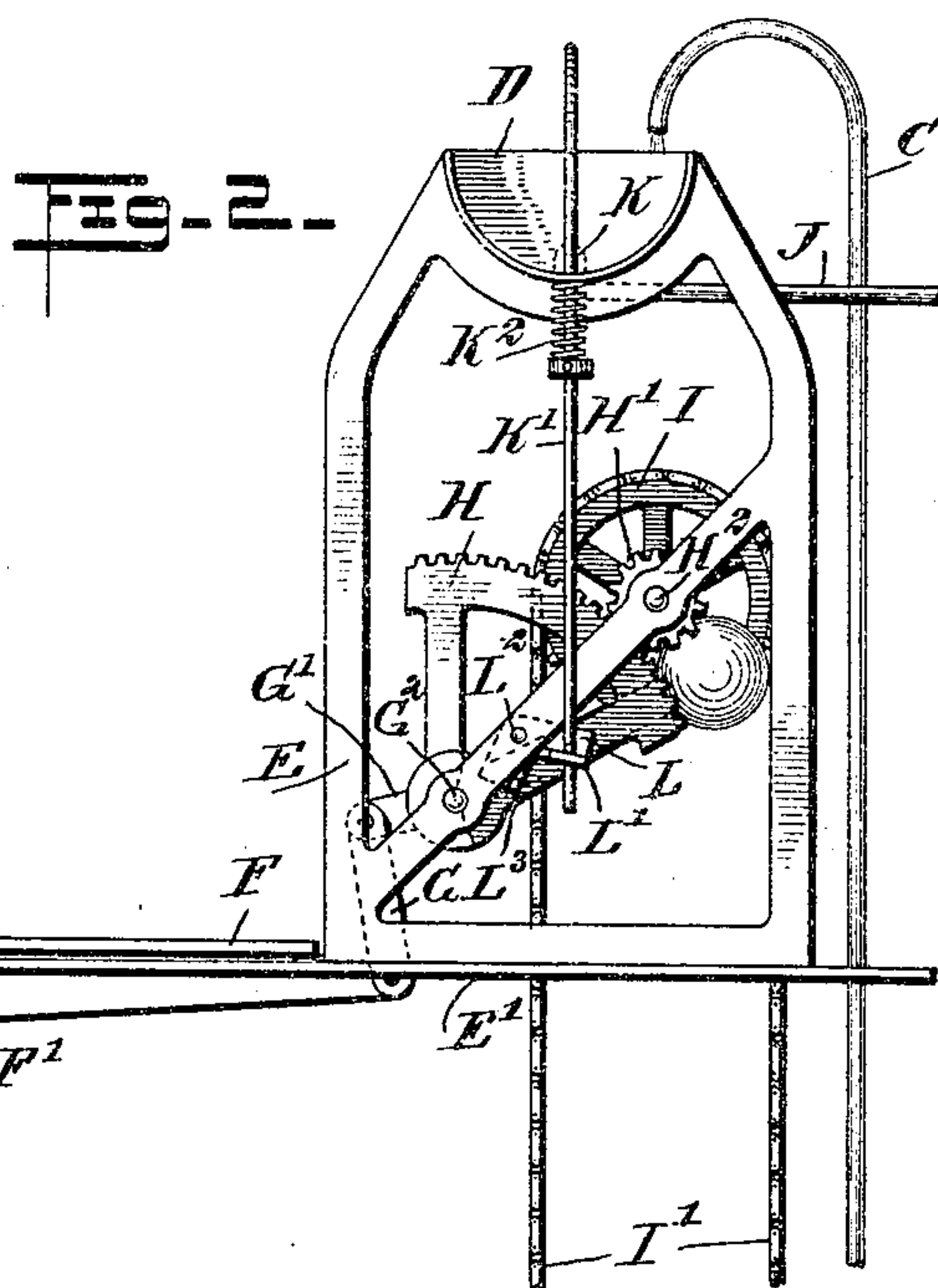
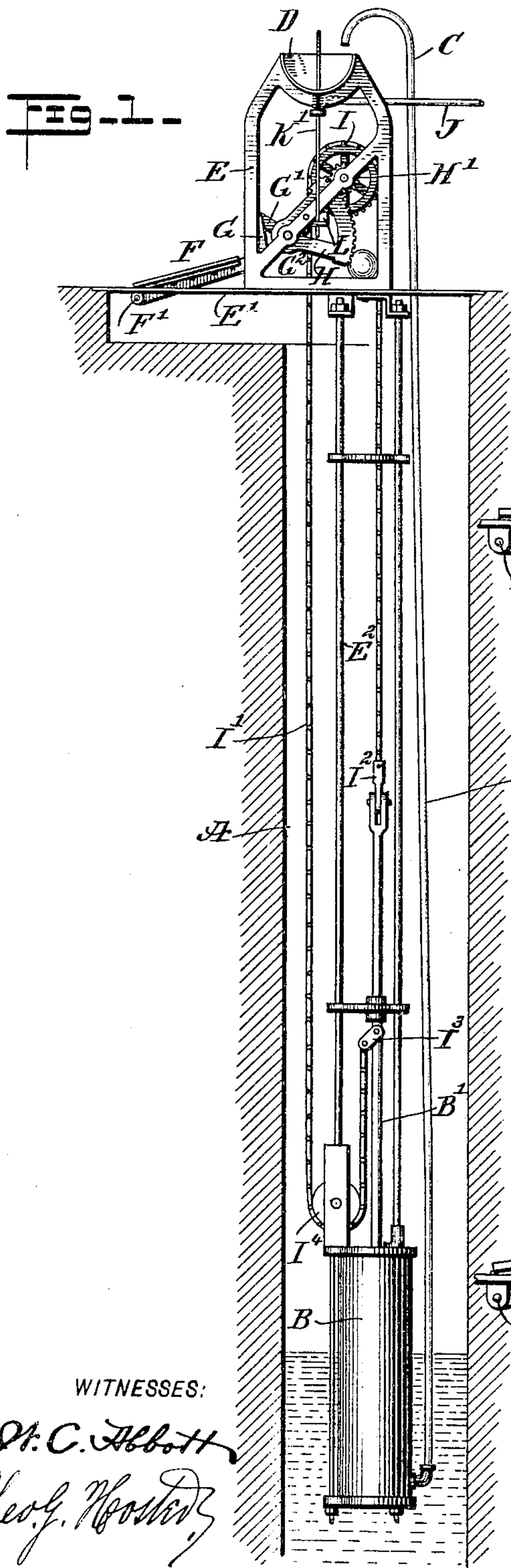
PATENTED AUG. 30, 1904.

F. C. MUDD.
STOCK WATERING DEVICE.

APPLICATION FILED NOV. 3, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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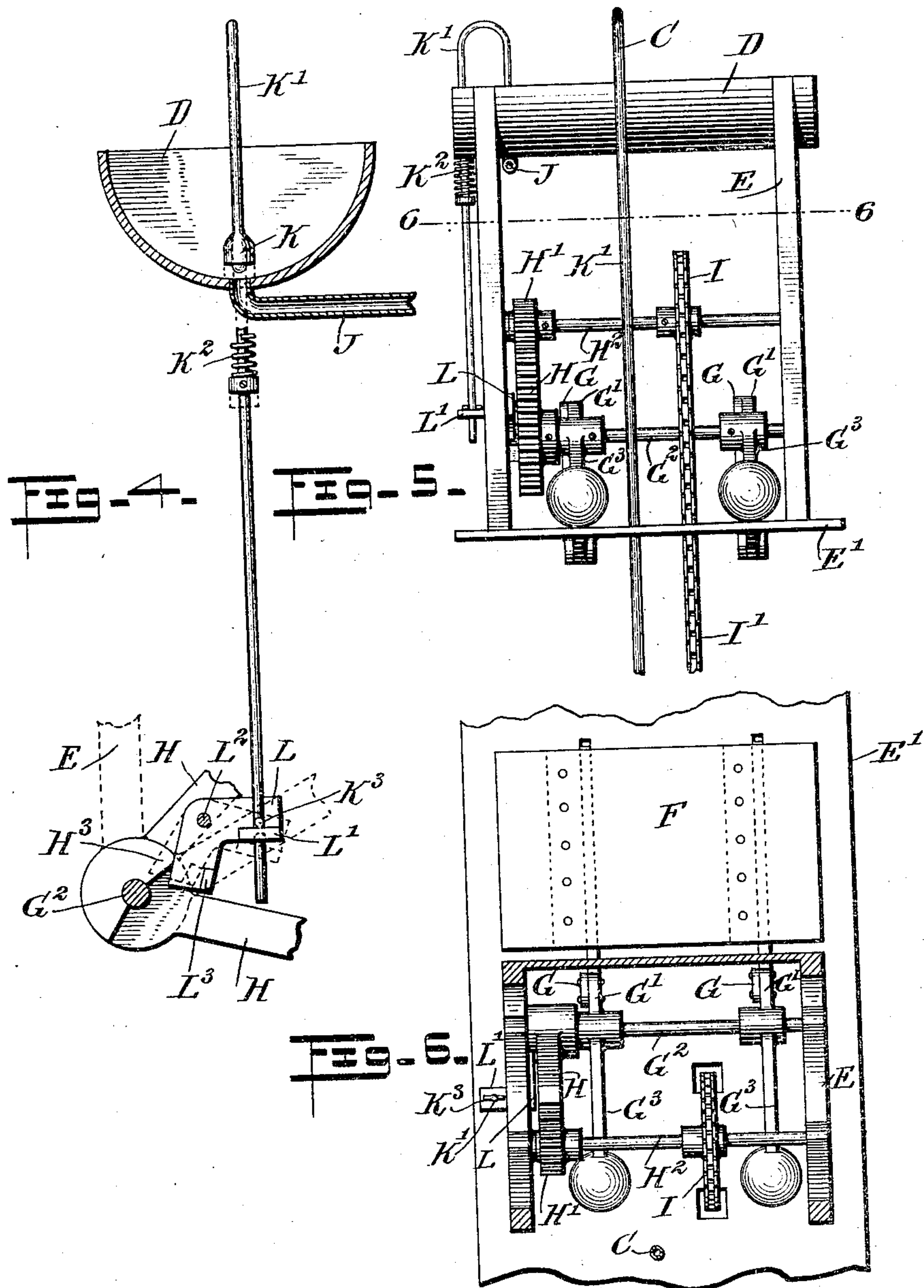
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NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANCIES C. MUDD, OF ELLISGROVE, ILLINOIS, ASSIGNOR TO HIMSELF,
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STOCK-WATERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 769,006, dated August 30, 1904.

Application filed November 3, 1903. Serial No. 179,708. (No model.)

To all whom it may concern:

Be it known that I, FRANCIES CELENA MUDD, a citizen of the United States, and a resident of Ellisgrove, in the county of Randolph and State of Illinois, have invented a new and Improved Stock-Watering Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved stock-watering device arranged to pump water to a trough or like water-receiving receptacle through the agency of the animal stepping up to the trough to drink.

The invention consists of novel features and parts and combinations of the same, as will be more 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 side elevation of the improvement as applied to a well. Fig. 2 is an enlarged side elevation of the same, showing the parts in pumping position. Fig. 3 is a similar view of the same, showing the automatic discharge for the water left in the trough by the animal after drinking. Fig. 4 is an enlarged sectional side elevation of the automatic trough-discharge. Fig. 5 is a rear elevation of the improvement, and Fig. 6 is a sectional plan view of the same on the line 6 6 of Fig. 5.

In a well A or other water-supply is arranged a pump B for raising water from the well by a discharge-pipe C into a trough D or other water-receiving receptacle mounted on a stand E, set on a suitable foundation on the top of the well A. On the base-plate E' of the stand E is fulcrumed at F' a platform F, located in front of the stand, so that an animal in stepping up to the trough D to drink must necessarily step onto the platform F, so that the animal's weight causes the platform to swing downward to actuate the pump B for the latter to force water from the well into the trough D by the pipe C. In order to accomplish this result, a gearing is provided connecting the platform F with the pump-rod

B' of the pump B, and this gearing is arranged as follows: The free end of the platform F is pivotally connected by a link or links G with arms G', projecting forwardly from a transverse shaft G², journaled in suitable bearings on the stand E, and the said shaft G² is provided with rearwardly-extending weighted arms G³ to cause a return or upward swinging motion of the platform F at the time the animal steps off the said platform. On the shaft G² is secured a segmental gear-wheel H in mesh with a pinion H', attached to a transverse shaft H², journaled in the stand E and carrying a sprocket-wheel I, over which passes a sprocket-chain I', extending downward into the well A and connected at its ends by links I² and I³ with the pump-rod B'. The lower end of the sprocket-chain I' passes around an idler I⁴, journaled on top of the pump B, as plainly indicated in Fig. 1. When the animal steps onto the platform F, normally standing in an inclined position, as shown in Figs. 1 and 3, then the weight of the animal swings the platform downward, so that the platform by the links G and arms G' imparts a turning motion to the shaft G², which by the segmental gear-wheel H and pinion H' causes a turning of the shaft H². As the sprocket-wheel I turns with the shaft H² its chain I' imparts a downward-sliding motion to the pump-rod B', so that water is forced out of the pump B by way of the pipe C into the trough D for the animal to drink. As soon as the animal has finished drinking and leaves the platform F, then the weighted arms G³ cause a return movement of the shaft G², whereby the platform F is caused to swing up to its previous inclined position, and the shaft H² is turned in the reverse direction to cause the chain I' to pull the pump-rod B' upward, so as to draw in a new supply of water into the pump B. The latter is preferably suspended from the base E' by suitable rods E², as plainly indicated in Fig. 1.

The trough D is provided with a drain-pipe J for discharging the water left by the animal in the trough after drinking, and the entrance end to the drain-pipe J is governed by a valve K to close the pipe J during the time

the water is pumped into the trough and the animal is drinking, so as to retain the water in the trough for the time being. The valve K (see Fig. 5) has its valve-stem K' extending upwardly out of the trough and then downward on the outside thereof, and the said stem is pressed on by a spring K² to normally hold the valve K on its seat at the entrance end of the drain-pipe J. The outer downwardly-extending part of the valve-stem K' is mounted to slide in suitable bearings on the trough D, and the lower end of the said stem part extends loosely in a lug L', projecting from one arm of a bell-crank lever L, fulcrumed at L² on the stand E. A pin K³ in the stem K' is seated on the top of the lug L', so that when a swinging motion is given to the bell-crank lever L then the lug L', abutting against the pin K³, raises the stem K' against the tension of the spring K² to lift the valve K off its seat and allow the water to flow from the trough D into the drain-pipe J and from the latter to a suitable place of discharge. The bell-crank lever L is adapted to be engaged by a shoulder H³, formed on the hub of the segmental gear-wheel H, so that when the segmental gear-wheel swings back to its lowermost position at the time the animal leaves the platform F then the shoulder H³ imparts a swinging motion to the bell-crank lever L for the latter to lift the stem K' and the valve K to raise the latter off its seat for the purpose mentioned. When the animal steps on the platform F and an upward swinging motion is given to the segmental gear-wheel H, then the shoulder H³ moves away from the bell-crank lever L, so that the spring K² forces the stem K' downward and the valve K to its seat to close the entrance end to the drain-pipe J during the time water is pumped into the trough D and while the animal is drinking. Thus during the time the platform F is disengaged by the animal the valve K is held open, and the valve is only closed during the time the animal stands on the platform F and the latter is in a lowermost position. A lug L³ on the bell-crank lever L limits the swinging motion of the bell-crank lever, the said lug abutting against an arm of the stand E. (See Fig. 2.)

From the foregoing it will be seen that after the animal is through drinking the remaining water in the trough D is automatically discharged, so that each animal receives its own fresh-water supply in the trough.

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

1. A stock-watering device comprising a water-receiving receptacle, a pump discharging into the said receptacle, a movable platform in front of the said receptacle, an operating-gear for the pump, adapted to be actuated from the said platform, and a water-discharge for the water-receiving receptacle, con-

trolled from the said operating-gear, as set forth.

2. A stock-watering device, comprising a water-receiving receptacle, a pump provided with a rod, and having a discharge-pipe discharging into the said receptacle, a pivoted platform in front of the said receptacle; and an operating-gear including a sprocket-chain connected at its ends with the pump-rod of the said pump, a sprocket-wheel over which the chain passes, and means for turning the sprocket-wheel from the said platform, as set forth.

3. A stock-watering device comprising a water-receiving receptacle, a pump discharging into the said receptacle, a pivoted platform in front of the said receptacle, and an operating-gear connecting the said platform with the pump-rod of the said pump, the said operating-gear comprising a shaft connected with the said platform, a segmental gear-wheel on the said shaft, a second shaft carrying a pinion, in mesh with the said segmental gear-wheel, and a sprocket-wheel on the said second shaft, connected by a sprocket-chain with the pump-rod of the pump, as set forth.

4. A stock-watering device comprising a water-receiving receptacle, a pump discharging into the said receptacle, a movable platform in front of the said receptacle, an operating-gear for the pump, adapted to be actuated from the said platform, and a water-discharge for the water-receiving receptacle, controlled from the said operating-gear, the said water-discharge comprising a valve for closing the discharge-pipe of the water-receiving receptacle, a spring-pressed valve-stem for the said valve, and a bell-crank lever connected with the said stem and adapted to be actuated by the said gear, as set forth.

5. A stock-watering device provided with a water-receiving receptacle having a drain-pipe, a valve for closing the drain-pipe, a spring-pressed valve-stem for the said valve, a platform in front of the said water-receiving receptacle, and means connected with the said platform for moving the said valve-stem against the tension of its spring to open the valve, as set forth.

6. A stock-watering device provided with a water-receiving receptacle having a drain-pipe, a spring-pressed valve for closing the said drain-pipe, means for opening the said valve, a platform in front of the said water-receiving receptacle, and means connecting the said platform with the said valve, as set forth.

7. A stock-watering device, comprising a water-receptacle, a pump discharging into the said receptacle, a platform pivoted at one end and located in front of the said receptacle, a shaft mounted to turn and provided with a forwardly-extending arm and a rearwardly-extending weighted arm, a link con-

necting said forwardly-extending arm with the free end of the platform, and an operative connection between the said shaft and the pump-rod, as set forth.

- 5 8. A stock-watering device, comprising a water-receptacle, a pump discharging into said receptacle, a platform mounted to swing downward by the animal's weight, an operating-gear for the pump actuated from the said platform, when the latter is swung downward, to force the water from the pump into the receptacle, means for reversing the movement of the operating-gear and returning the platform to its upper position when the latter is
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relieved of the animal's weight, a water-dis- 15
charge for the water-receptacle, a spring-pressed valve for closing the discharge, and means for opening said valve on the reverse movement of the operating-gear for the pump as set forth. 20

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

FRANCIES C. MUDD.

Witnesses:

WM. LUTHER SPURGEON,
ROBT. M. SPURGEON.