

No. 890,318.

PATENTED JUNE 2, 1908.

C. E. MARSHALL.
POWER MECHANISM.
APPLICATION FILED MAR. 18, 1907.

2 SHEETS—SHEET 1.

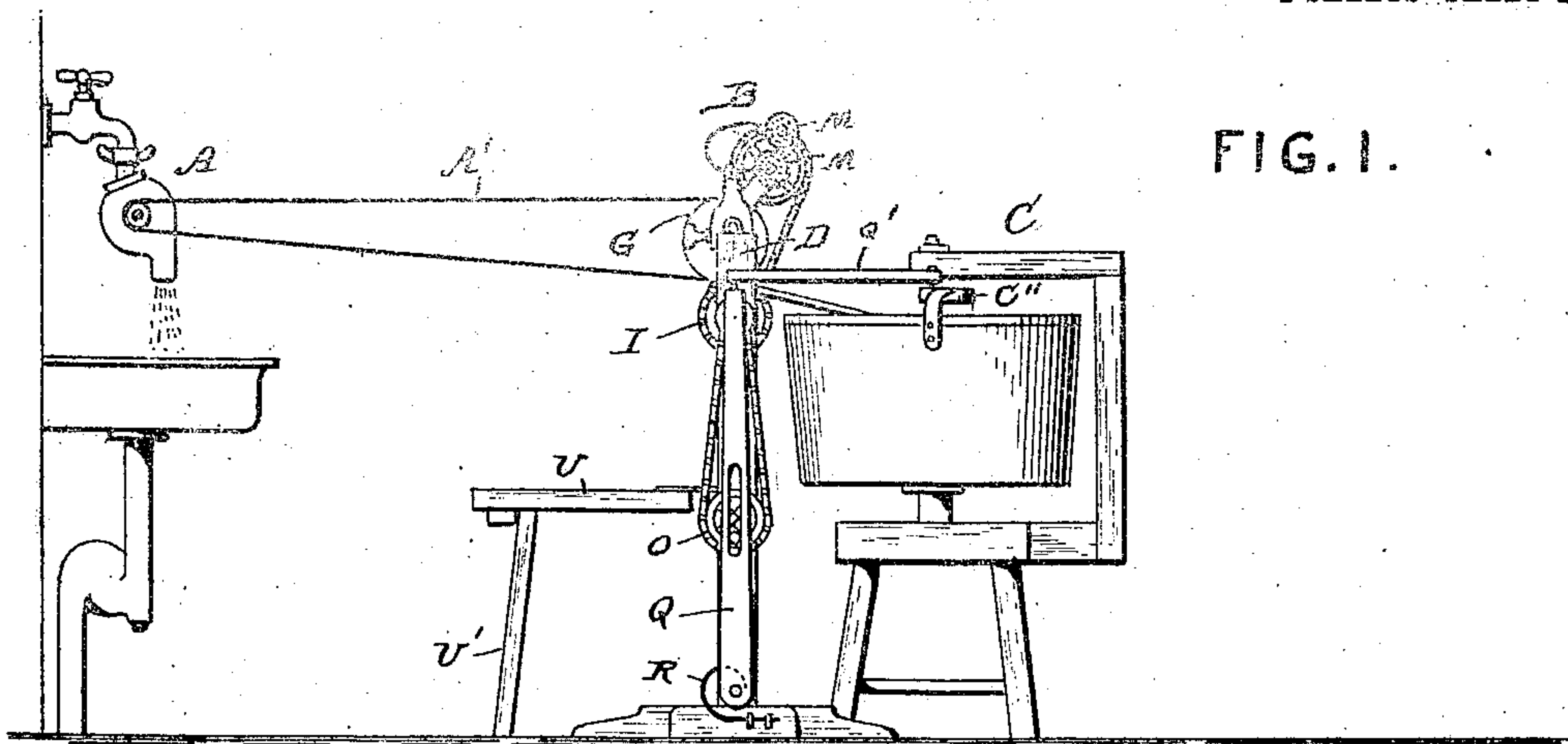


FIG. 1.

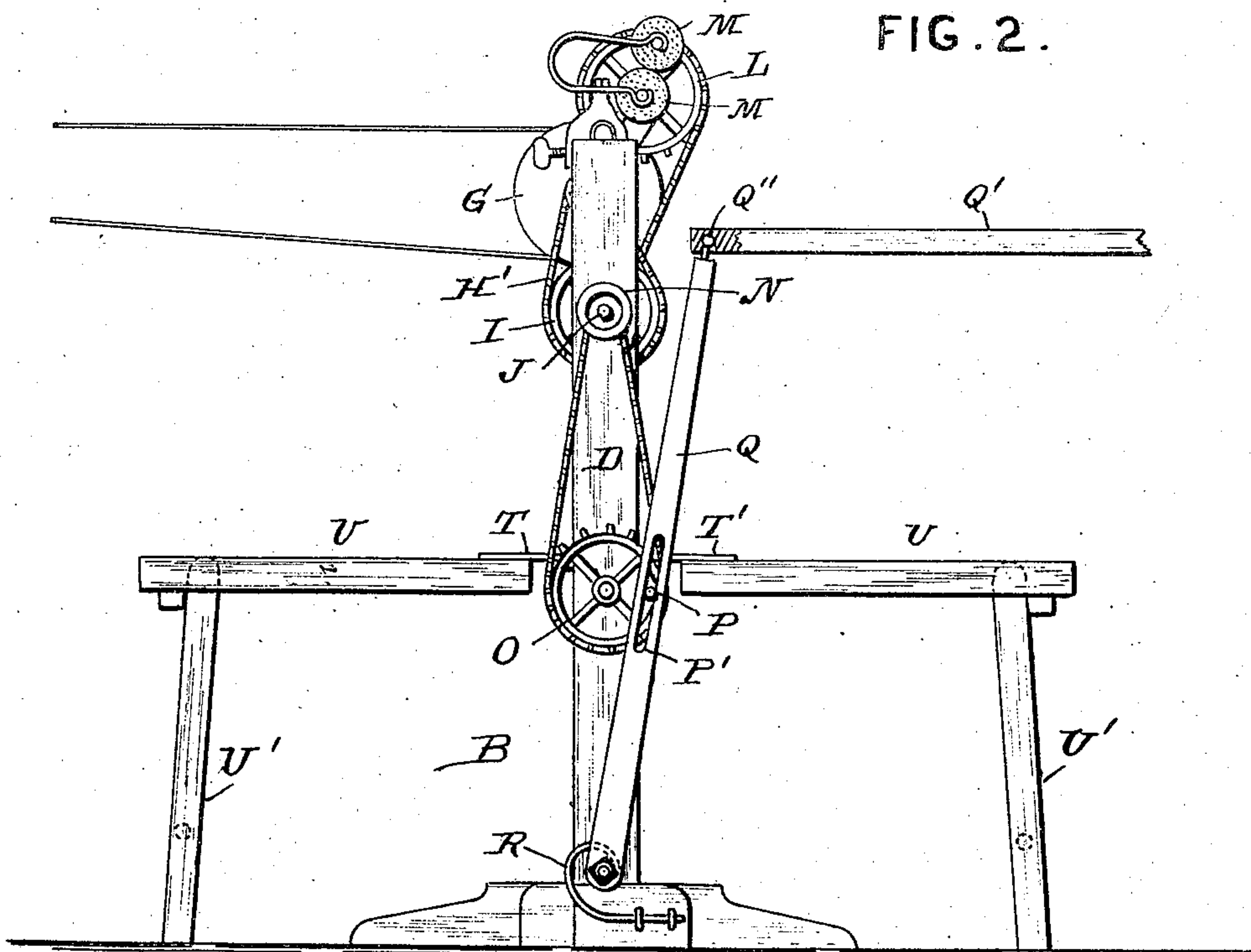


FIG. 2.

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C. E. MARSHALL.
POWER MECHANISM.
APPLICATION FILED MAR. 15, 1907.

2 SHEETS—SHEET 2.

FIG. 3.

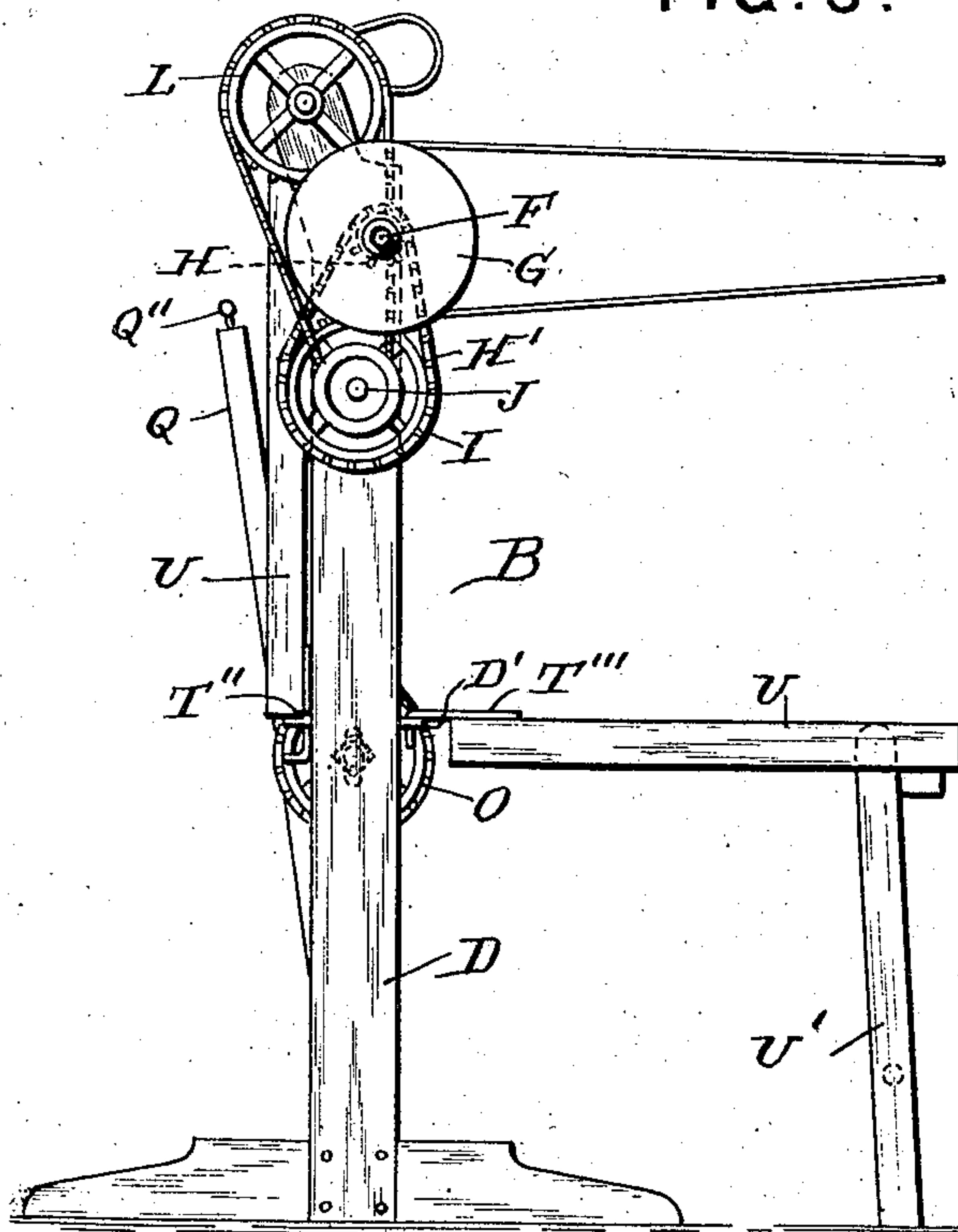


FIG. 4.

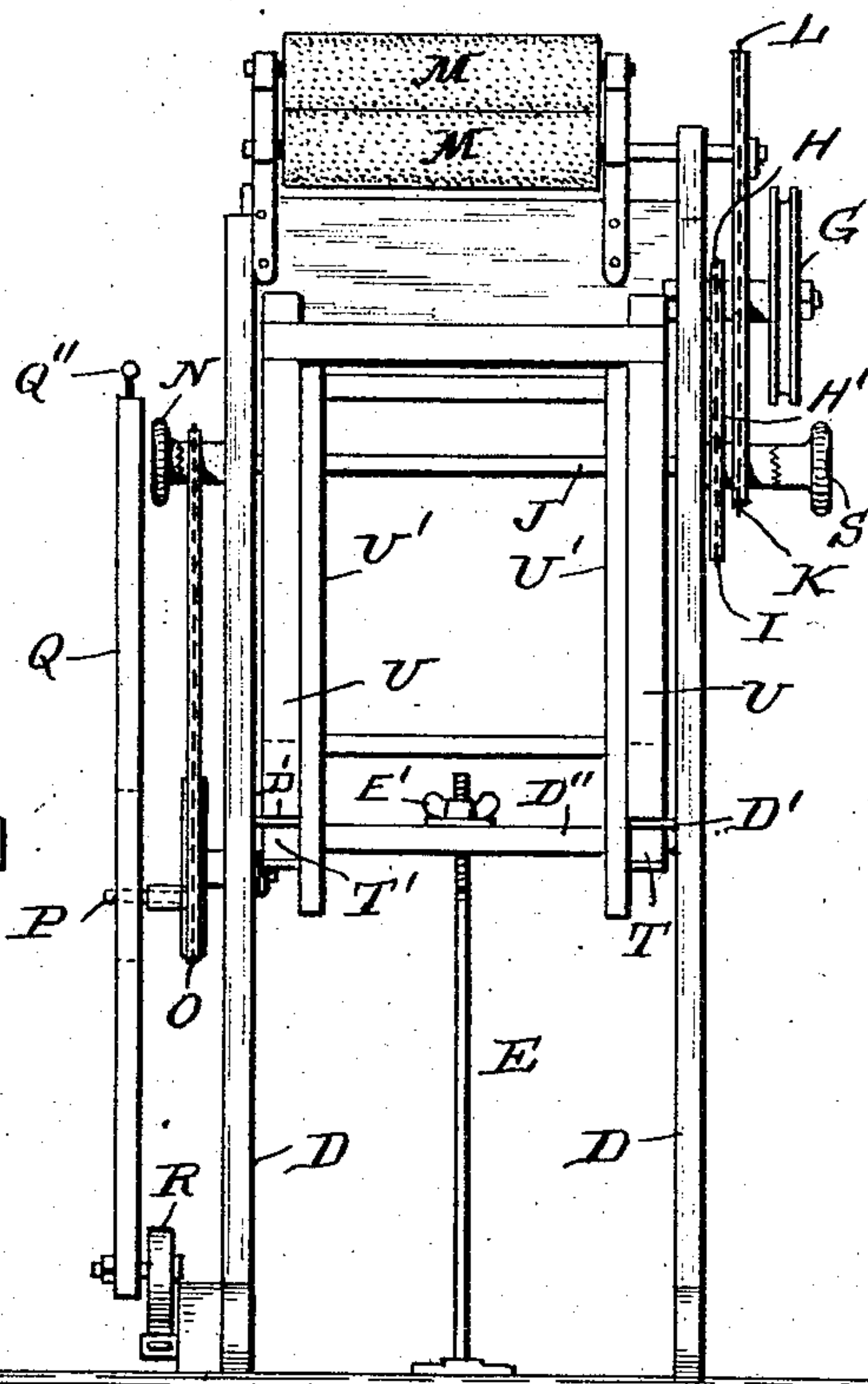


FIG. 5.

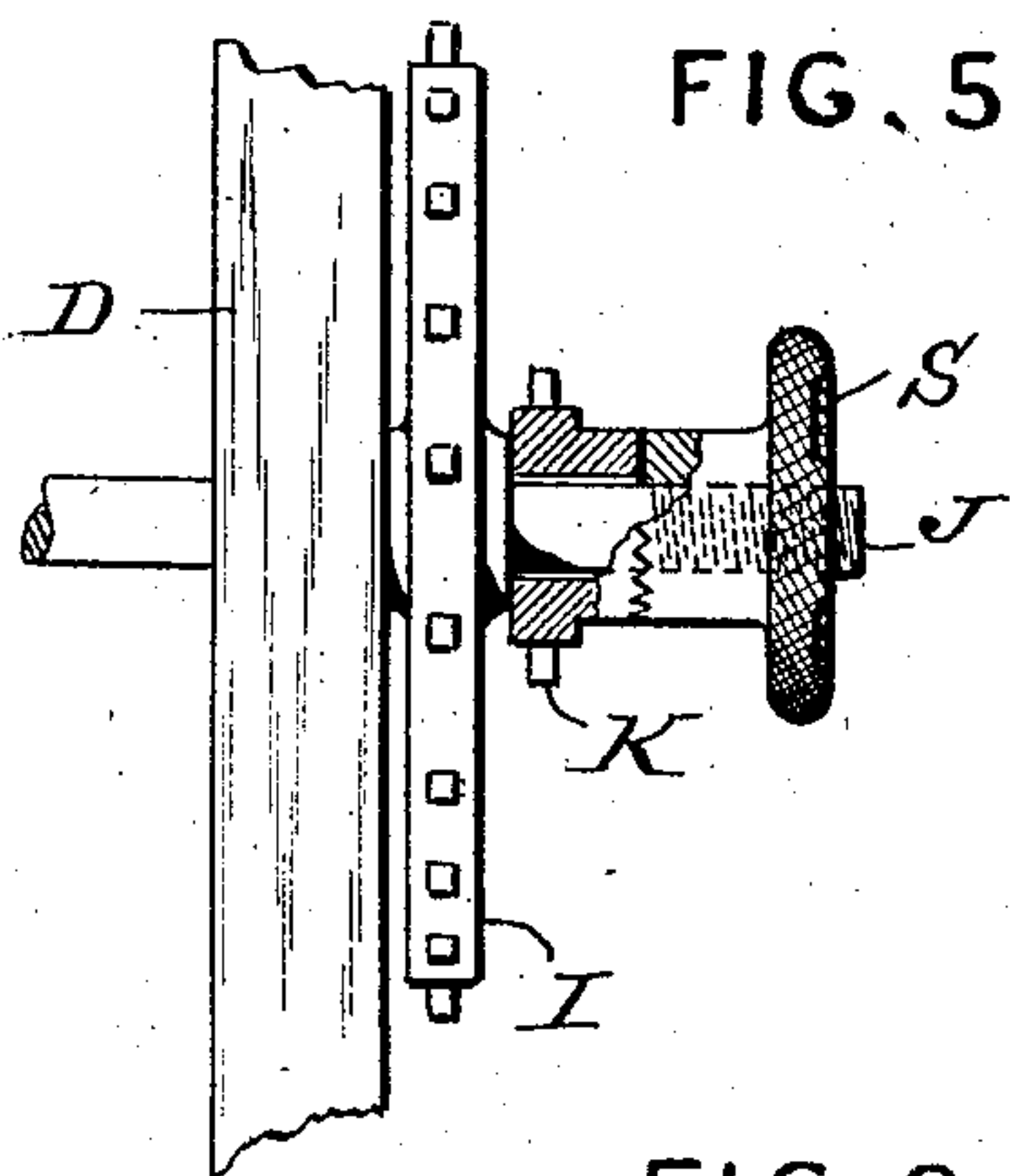


FIG. 6.

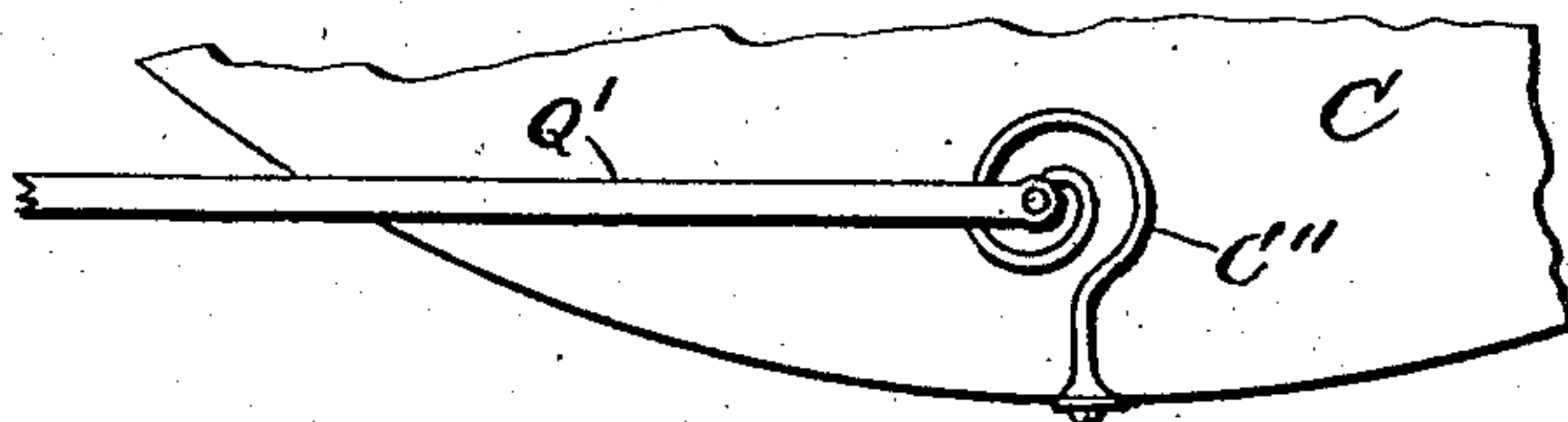


FIG. 7.

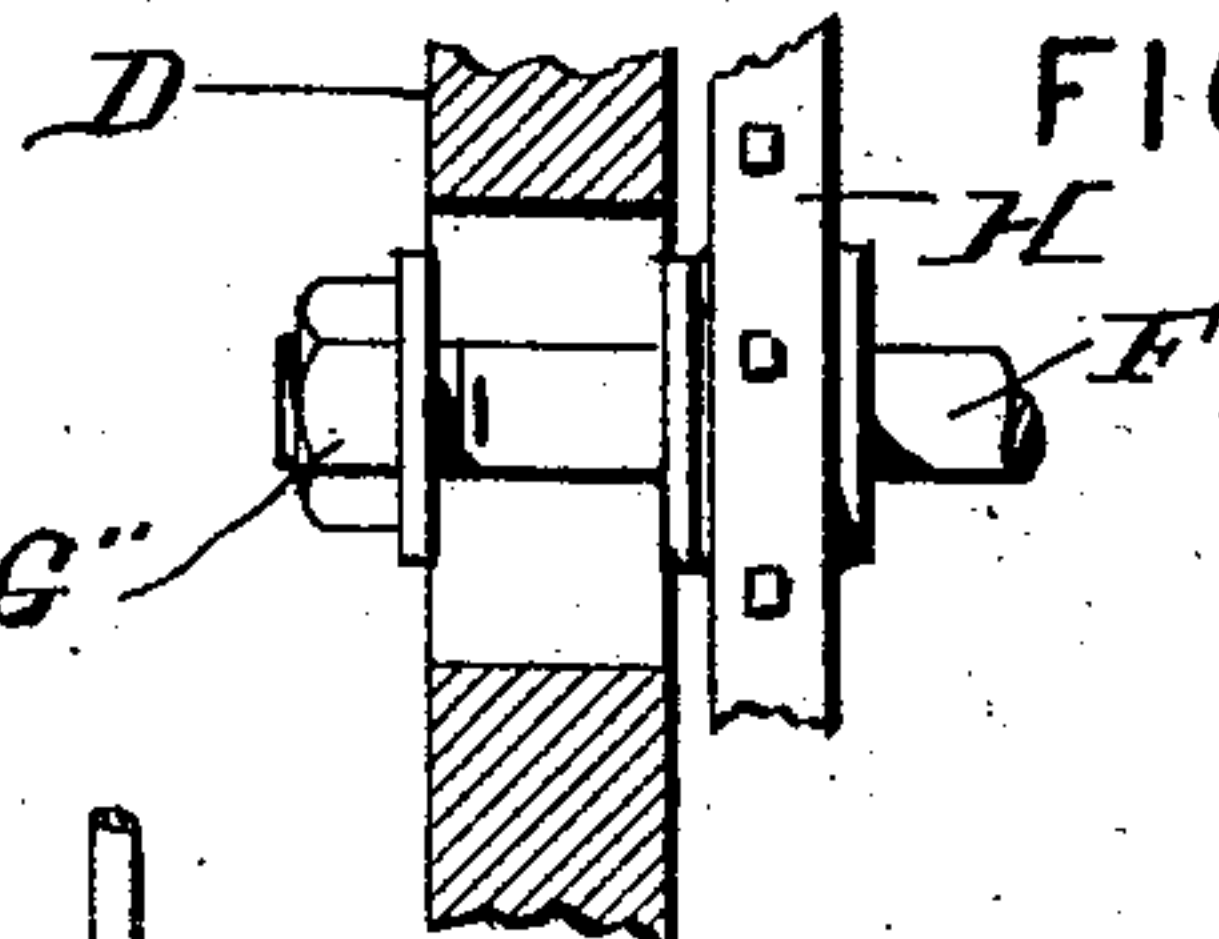


FIG. 9.

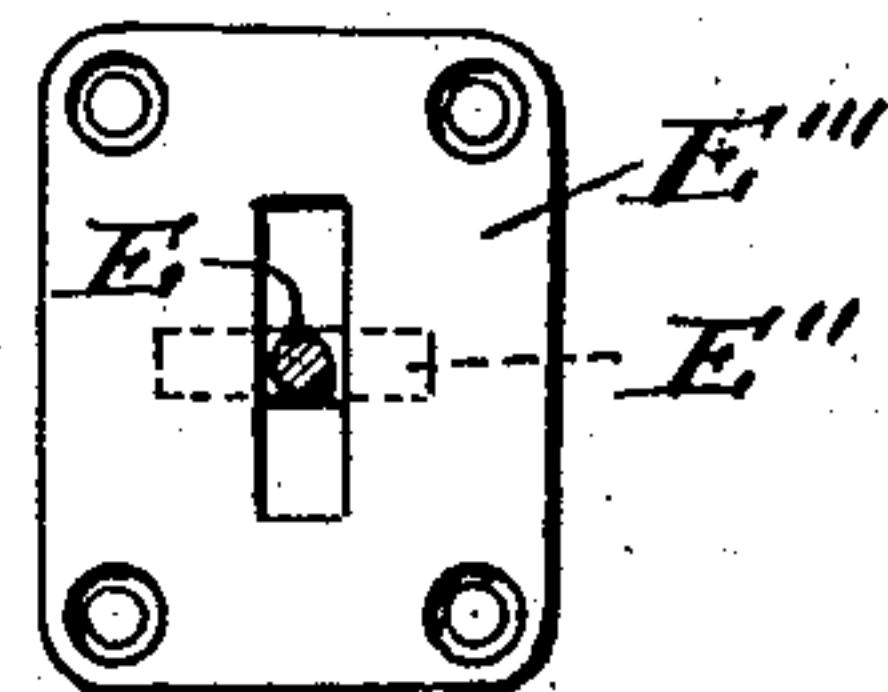
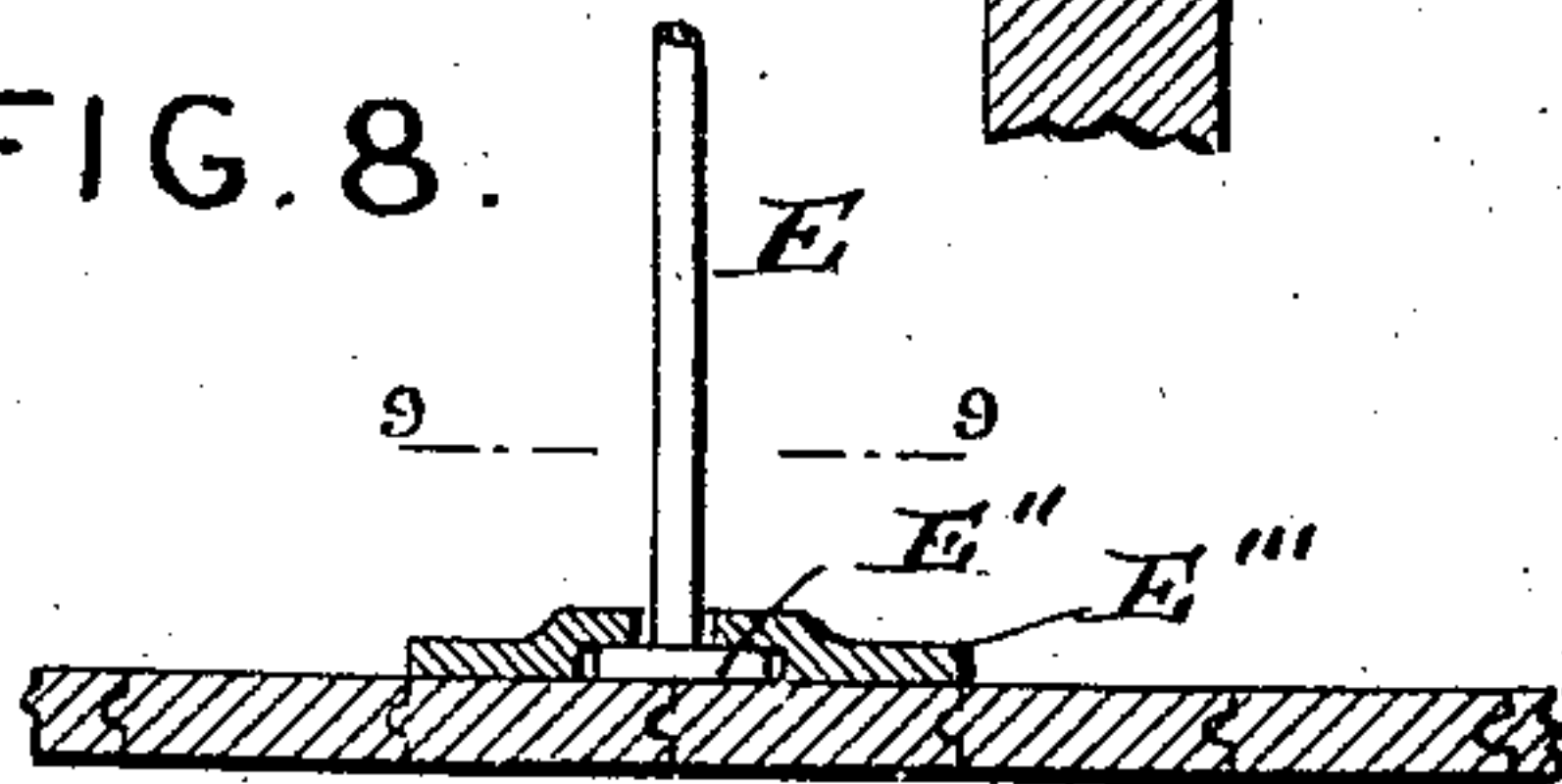


FIG. 8.



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UNITED STATES PATENT OFFICE.

CHARLES E. MARSHALL, OF LESTERSHIRE, NEW YORK.

POWER MECHANISM.

No. 888,318.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed March 15, 1907. Serial No. 362,482.

To all whom it may concern:

Be it known that I, CHARLES E. MARSHALL, a citizen of the United States, residing at Lestershire, in the county of Broome and State of New York, have invented certain new and useful Improvements in Power Mechanism, of which the following is a specification.

My device is a means of applying mechanical power from a motor to a machine having either a rotary or vibrating movement.

A practical embodiment of my invention is herein shown and described as applied to driving washing and wringing machines.

My device further consists of the following elements.

I obtain this object by the mechanism illustrated in the accompanying drawing in which—

Figure 1 is a general view showing the application of my invention. Fig. 2 is a side view of my invention. Fig. 3 is a similar side view taken on the opposite side to Fig. 2. Fig. 4 is an end view. Fig. 5 is a detailed view of the clutch mechanism. Fig. 6 is a fragmentary plan view of the connecting device in my invention. Fig. 7 is a sectional view of the adjustable shaft. Fig. 8 is a sectional view of a fastening device. Fig. 9 is a horizontal section taken on the line 99 of Fig. 8.

Similar letters refer to similar parts throughout the several views.

The motor A operates my device B, which in turn may operate a washing machine C or other machinery to be operated in like manner.

My invention consists mainly in a suitable frame D which is fastened firmly to the floor by the rod E as shown in detail in Figs. 8 and 9. On the frame D is mounted a shaft F carrying a pulley G which is actuated by a prime motor, which is shown at A. On shaft of pulley G is mounted a sprocket wheel H, geared by chain H' to a sprocket wheel I. This sprocket wheel is mounted on shaft J adjacent to the loosely mounted sprocket wheel K geared to a sprocket wheel L, which actuates the rollers of the wringers MM. On the other end of shaft J is mounted a clutch mechanism N, said clutch being connected by a sprocket chain to sprocket wheel O. On this sprocket wheel is mounted a pin P, which engages a slot P' formed in the vibrating arm Q. This arm is yieldingly ful-

crumed to the frame D, by a coiled spring R as hereinafter described.

On the frame D, I prefer to mount eyes D' formed for the reception of the hooks T, T', T'', T''' fastened to the frame work of the movable tables UU. These tables are formed with swinging legs U' which enable the tables to be swung up out of the way, when not in use, as shown on the left hand side of Fig. 3, and when so raised to an upright position the hooks attached to said tables slide downward through the eyelets as shown at T'' and the table is thus held firmly against the frame in an upright position or the tables may be taken out of the eyes altogether if desired. For the purpose of securing my device firmly to the floor, I construct a cross-piece D'' on the frame D which carries a rod E, with a thumb screw E'. The other end of said rod is provided with a cross piece E'' which engages in a plate E''' firmly screwed to the floor. It is obvious on referring to Fig. 9 that this cross piece E'' can be slipped into a slot formed in the plate E''', and then turned at right angles as shown in Fig. 9, which securely locks the rod in place; thus holding my device firmly to the floor.

The upper end of the vibrating arm Q engages a pitman Q' by a ball and socket joint Q'', said pitman operating the washing machine C through the coiled spring connection C''. For the purpose of throwing sprocket K in and out of gear, I employ a clutch mechanism S: shown more clearly in Fig. 5. This mechanism consists in the hand wheel S, threaded to the shaft J; on the shaft J being loosely mounted the sprocket wheel K, so that when the clutch S is loosened, said sprocket wheel K will remain stationary or out of gear and the rollers of the wringing machine will be out of action; similarly, clutch N will serve to throw the vibrating frame Q in and out of gear as desired. For the purpose of adjusting the shafts F and J'', I form slots in the frame D, as more clearly shown in Fig. 7, so that by means of the nut G'', said shafts may be properly lined up and there secured.

In operation I first connect a belt A' to the motor A. This belt engages in pulley G, which belt (assuming clutch S to be tightened up) will operate the wringer rollers MM; and when it is desired to operate the washing machine C, the clutch S is loosened and the clutch N is tightened which will throw the

wringer rollers out of gear, and operate the washing machine C, as hereinbefore described.

In operation it will be noticed particularly
5 that the arrangement of the driving mechanism reduces the speed from the motor to my device, and the speed may be still further reduced by making sprocket wheels of suitable size so that my invention will be worked at a
10 comparatively low speed at the point of action, thus reducing the force of the vibration and at the same time increasing the efficiency of the machine. To still further make the action of my machine even and regular I employ the coiled springs R and C'', spring R
15 being suitably fastened to the frame D and engaging the fulcrum of the vibrating arm Q—thus making a yielding fulcrum forming an equalizer to steady the motion and compensate for the want of alinement there may
20 be between my device B and the washing machine C. Similarly the coiled spring C'' will perform a like function of compensation as more clearly shown in Fig. 6.

25 Having thus described my invention what I claim as new and for which I desire Letters Patent, is as follows:

1. An operating mechanism comprising a frame, means for anchoring the frame to a
30 stationary support, a driving shaft journaled

therein adapted to be actuated by a prime motor, a lever yieldingly fulcrumed to the frame, a crank mechanism for reciprocating said lever, connections between the driving shaft and crank mechanism, and clutch mechanism on the driving shaft for controlling the operation of the crank mechanism. 35

2. The combination with a device mounted to oscillate, of a stationary frame, means for anchoring the frame in place, a lever yieldingly fulcrumed thereto, crank mechanism
40 for reciprocating said lever, driving mechanism for operating the crank mechanism, a pitman connected to the lever, said pitman having yielding connection with the device to
45 be driven.

3. The device herein described comprising a frame, a driving shaft journaled therein, a lever yieldingly fulcrumed to the frame, crank mechanism for reciprocating said lever,
50 connections between the driving shaft and crank mechanism, and clutch mechanism on the driving shaft for controlling the operation of the crank mechanism.

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

CHARLES E. MARSHALL.

Witnesses:

M. E. MANNING,

H. E. MAREAN.