No. 730,538. PATENTED JUNE 9, 1903.

J. HOFMANN.

WASHING MACHINE.

APPLICATION FILED FEB. 16, 1903.

NO MODEL.

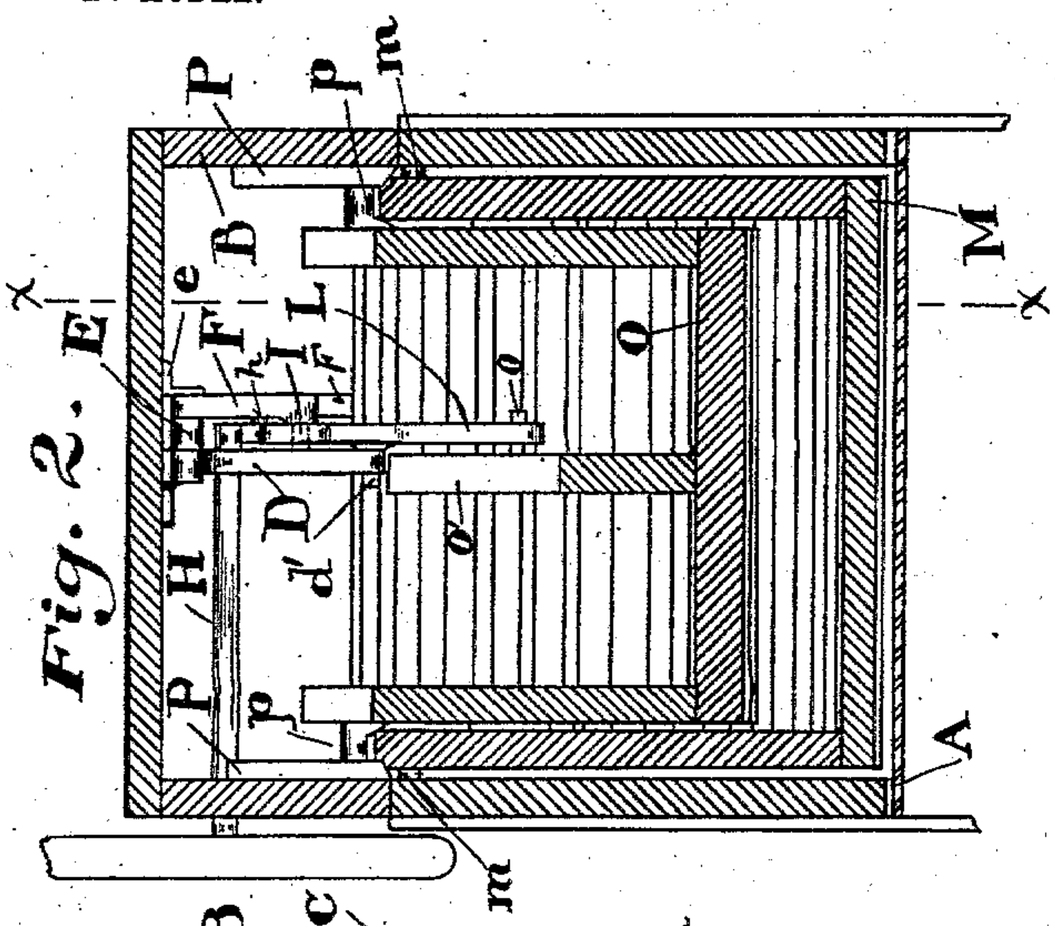

Fig. 2.

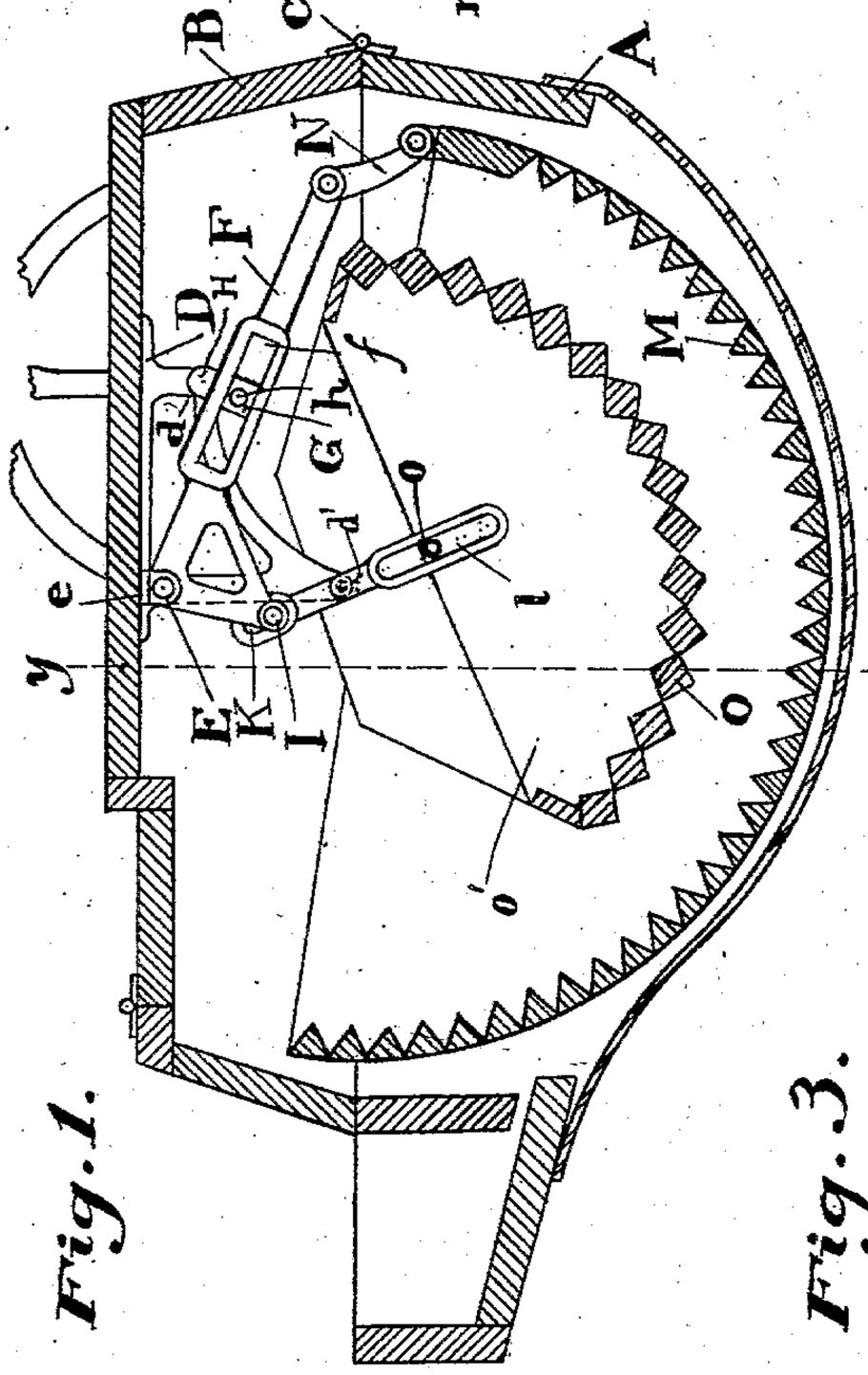

Fig. 1.

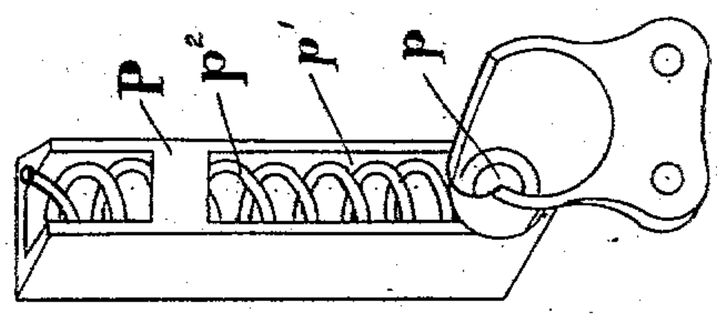

Fig. 6.

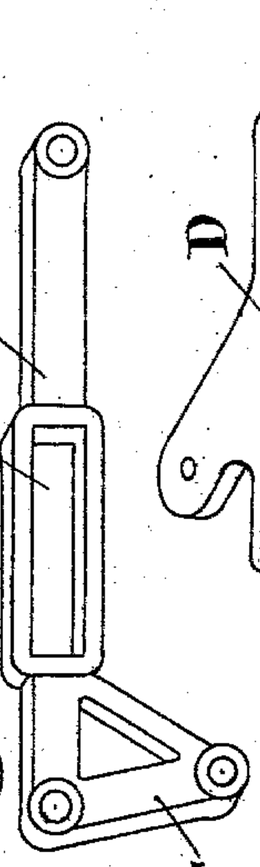

Fig. 4.

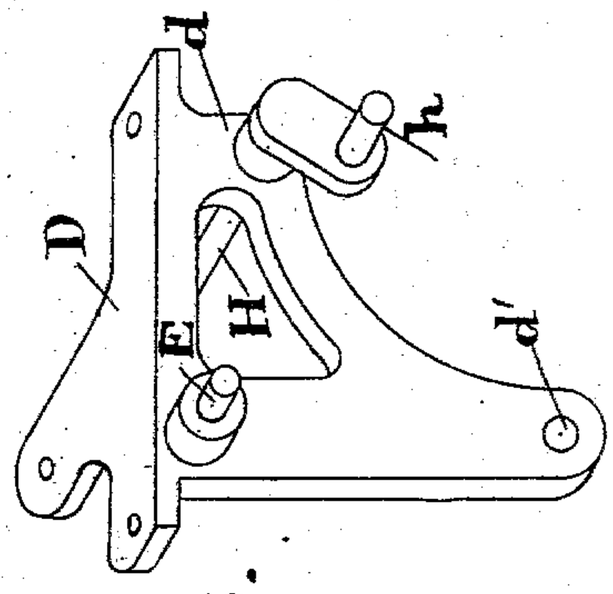

Fig. 5.

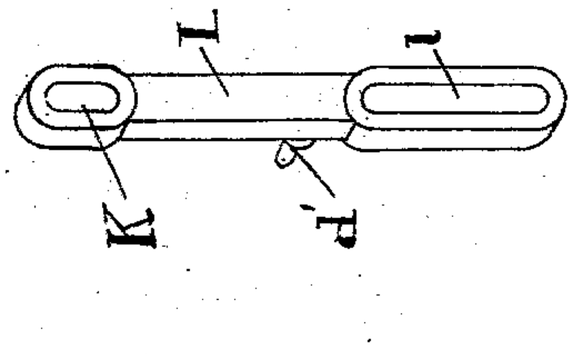

Fig. 3.

Witnesses

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No. 730,538. Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

JOHANN HOFMANN, OF WEST COVINGTON, KENTUCKY, ASSIGNOR TO ERNEST H. HUENEFELD, OF CINCINNATI, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 730,538, dated June 9, 1903.

Application filed February 16, 1903. Serial No. 143,599. (No model.)

To all whom it may concern:

Be it known that I, JOHANN HOFMANN, a citizen of the United States, residing at West Covington, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to washing-machines especially of that character in which two opposing rubbers having curved rubbing-surfaces are adapted to be rocked in opposite directions; and my invention consists in the parts and in the construction, arrangement, and combinations of parts hereinafter more fully described and claimed.

In the drawings, Figure 1 is a longitudinal section of my improved device, taken on the line $x\,x$ of Fig. 2. Fig. 2 is a cross-section of the same, taken on the line $y\,y$ of Fig. 1. Fig. 3 is a detail in perspective of the swingable lever for the upper rubber. Fig. 4 is a similar view of the approximately bell-crank-shaped swinging lever. Fig. 5 is a similar view of the supporting-bracket, having the crank-shaft journaled therein; and Fig. 6 is a similar view of the channel-piece for supporting the pivot-pin of the upper rubber.

A represents the body of the washing-machine, and B the cover, which latter is hinged, as at C, to the body A. A bracket D is suitably secured to the under side of the cover and depends therefrom into the machine when the same is in normal or closed relation.

E is a stud on the bracket, on which a swinging lever F is pivoted intermediate of the ends of the lever. This lever is shown as approximately bell-crank shaped. It has pivotal connection with the crank-shaft H, as by having the crank-pin h of the crank-shaft take into a box G, sliding in a slot f of the lever F. The crank-shaft is journaled in a bearing d of the bracket D and carries a suitable handle, wheel, or other operating device for turning the shaft preferably in a given direction, thereby turning the crank-pin with it and causing the lever F to rock on its pivot. The lever F has a stud I, which takes into a slot K of a lever L. The lever L is pivoted intermediate of its ends at d' to the bracket D. An outer bearing e for the stud E is secured to the under side of the lid D. The outer end of the swinging lever F is connected to a lower rubber M by a link N, and the outer end of the swinging lever L is provided with a slot l, into which a pin o on a cross-bar o' of an upper rubber O is adapted to take, the cross-bar being preferably placed about the middle in width of the upper rubber, with the bracket and parts supported thereby substantially above the same. The lower rubber is pivoted at m to the body of the washing-machine and the upper rubber is pivoted on a pin p in a slot p' of a channel-piece P, secured to the cover. A spring p^2 yieldingly holds the upper rubber downwardly. The upper rubber is thereby permitted to move toward and from the lower rubber, dependent on the quantity of wash between the rubber, and the pin o is simultaneously permitted to slide in the slot l, and thereby have movement of the swinging lever L imparted to the upper rubber irrespective of its changes in position stated.

When the cover is lifted, it carries with it the parts depending therefrom. It may be tilted back sufficiently to prevent its falling back of its own weight and supported suitably in raised position, the link N being bent inwardly slightly to prevent cramping between the lower rubber and parts on the cover.

My improved construction provides a simple and substantial device of few parts of cheap construction which is capable of easy and smooth operation.

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

1. In a washing-machine, the combination with the body and its cover, an upper rubber and a lower rubber, of a bell-crank lever pivoted intermediate of its ends below the cover, a connection therefrom to the lower rubber, a swingable lever articulated with the bell-crank lever, a connection therefrom to the upper rubber, a pivotal support for the swingable lever intermediate of its ends, and means for swinging the bell-crank lever.

2. In a washing-machine, the combination with the body and its cover, and an upper rubber and a lower rubber, of a bracket depending from the cover when in normal closed position, a bell-crank lever and a swing-

able lever pivotally supported from the bracket intermediate of their respective ends, an articulated connection between the levers, a connection between the bell-crank lever and the lower rubber and a sliding connection between the swingable lever and the upper rubber, and operating means for swinging the bell-crank lever.

3. In a washing-machine, the combination with a body, cover, upper rubber, lower rubber, and crank-shaft, of a bell-crank lever, a swinging lever, an articulated connection between said levers, a connection between the crank-shaft and one of said levers for moving the levers, a connection between one of said levers and the upper rubber, and a connection between the other of said levers and the lower rubber.

4. In a washing-machine, the combination with its body and cover, of a bracket secured under the cover and depending therefrom, a pair of swingable levers, a rigid bearing for each lever in the bracket intermediate of the ends of the respective swingable levers, a joint between the swinging levers, a connection between one of the swingable levers and the upper rubber and a connection between the other swingable lever and the lower rubber, with a shaft operatively connecting with one of said levers.

5. In a washing-machine, the combination with the body, cover, upper rubber, lower rubber, and crank-shaft, of a swinging lever having a connection intermediate of its ends within the machine with the crank-shaft, a connection between said lever and the lower rubber, a second swinging lever having a pivot under the cover, a connection therefrom to the upper rubber, said levers being connected together for swinging movement of both levers.

6. In a washing-machine, the combination with the body and its cover, of an upper rubber pivotally hung from the cover and a lower rubber pivotally hung from the body of the machine, a bracket secured under the cover, a crank-shaft journaled therein and extending longitudinally outside the cover for receiving an operating device, a bell-crank lever and a swinging lever within the machine, an articulated connection between them, a connection within the machine between the crank-shaft and one of said levers for moving the levers, a connection within the machine between one of said levers and the upper rubber, and a connection within the machine between the other of said levers and the lower rubber.

7. In a washing-machine, the combination with its body and cover, of a bracket secured under the cover and depending therefrom, a bell-crank lever and a swingable lever pivoted to the bracket intermediate of their respective ends, a sliding connection between an end of the bell-crank lever and an end of the swingable lever, a lower rubber and an upper rubber, a sliding connection between the other end of the swingable lever and upper rubber, with a connection between the other end of the bell-crank lever and lower rubber, and a crank-shaft having a crank-pin and slidable connection between the crank-pin and bell-crank lever.

8. In a washing-machine, the combination with the upper and lower rubbers, a bell-crank lever and a swingable lever pivoted between their respective ends and articulated with each other, a connection between the swingable lever and upper rubber and a connection between the bell-crank lever and lower rubber, a crank-pin and connection therefor with the bell-crank lever for operating the latter, all constructed and arranged within the washing-machine, and a crank-shaft for the crank-pin extended to outside the machine.

In witness whereof I have signed my name hereto in the presence of two subscribing witnesses.

JOHANN HOFMANN.

Witnesses:
ERNEST G. SIMON,
HERBERT F. HARDEN.