

(No Model.)

B. R. HAND.
WASHING MACHINE.

No. 362,740.

Patented May 10, 1887.

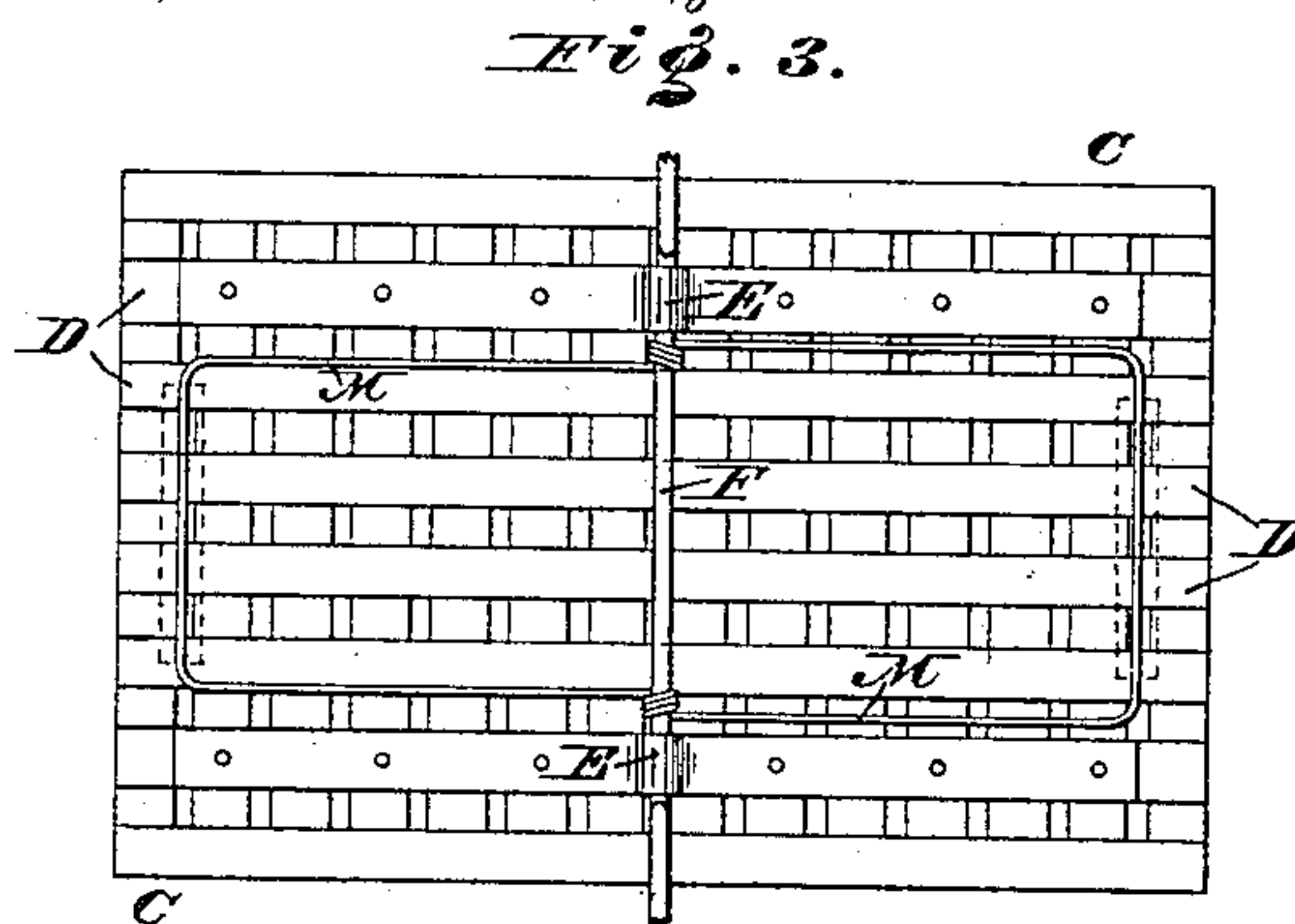
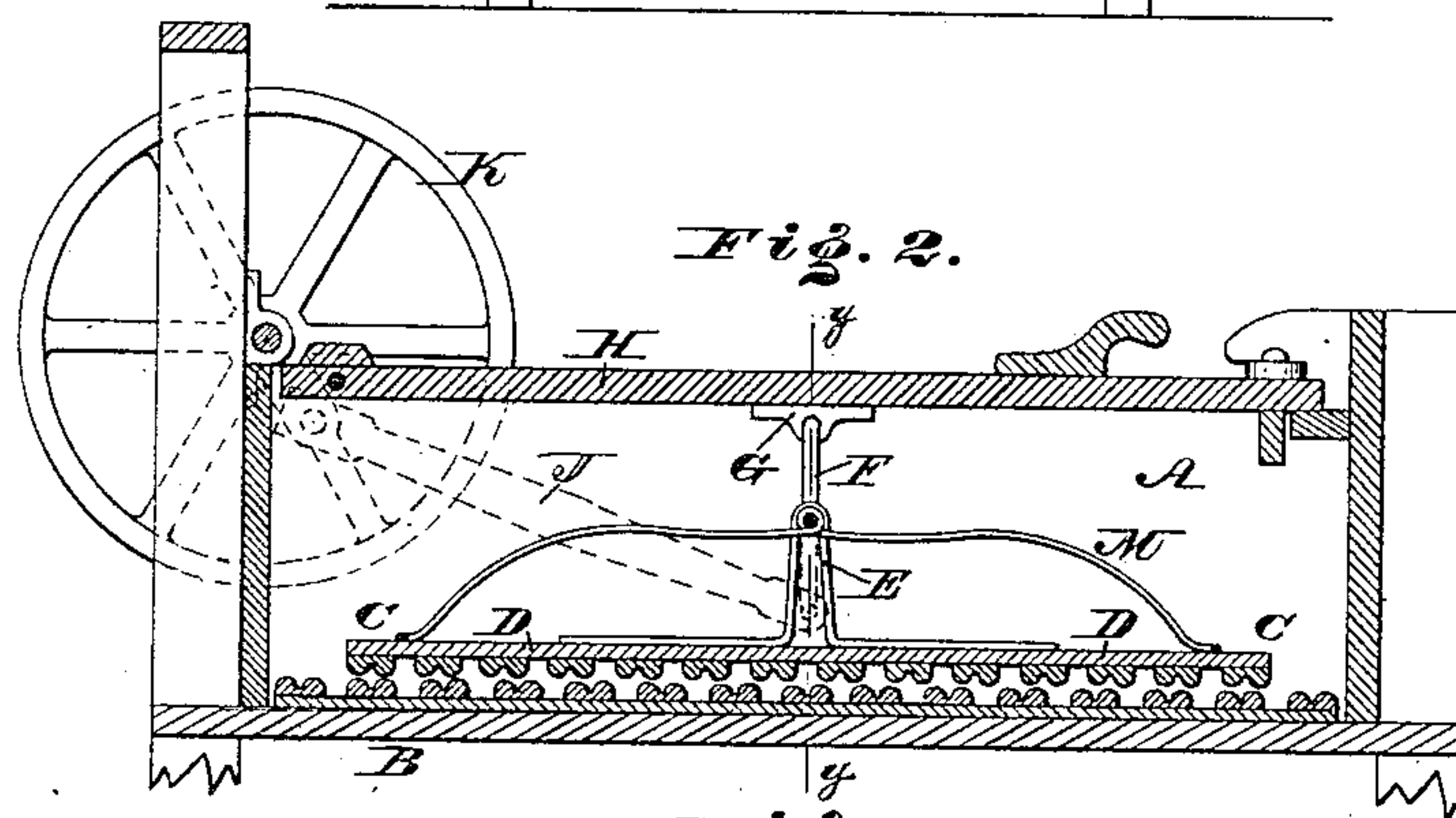
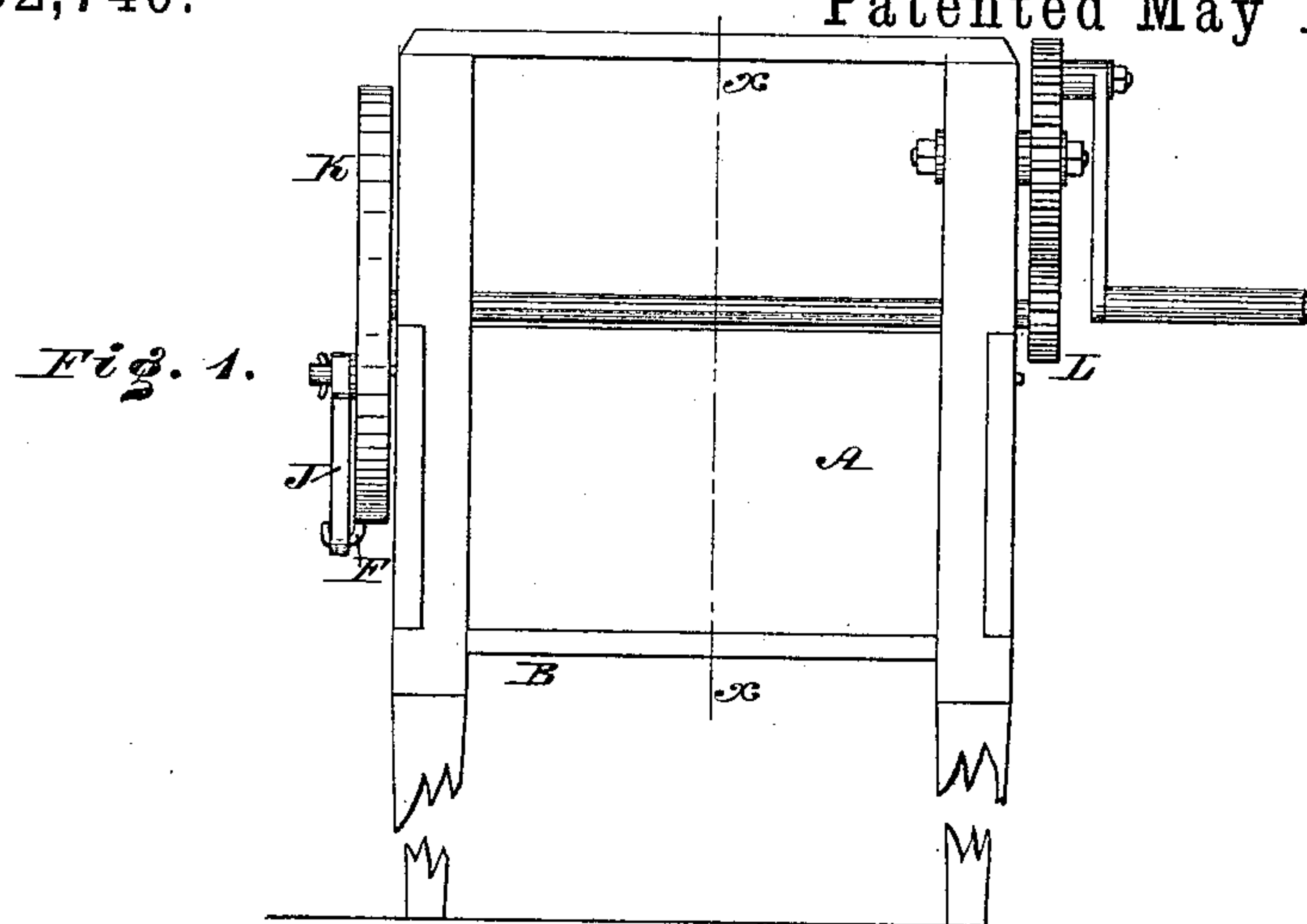
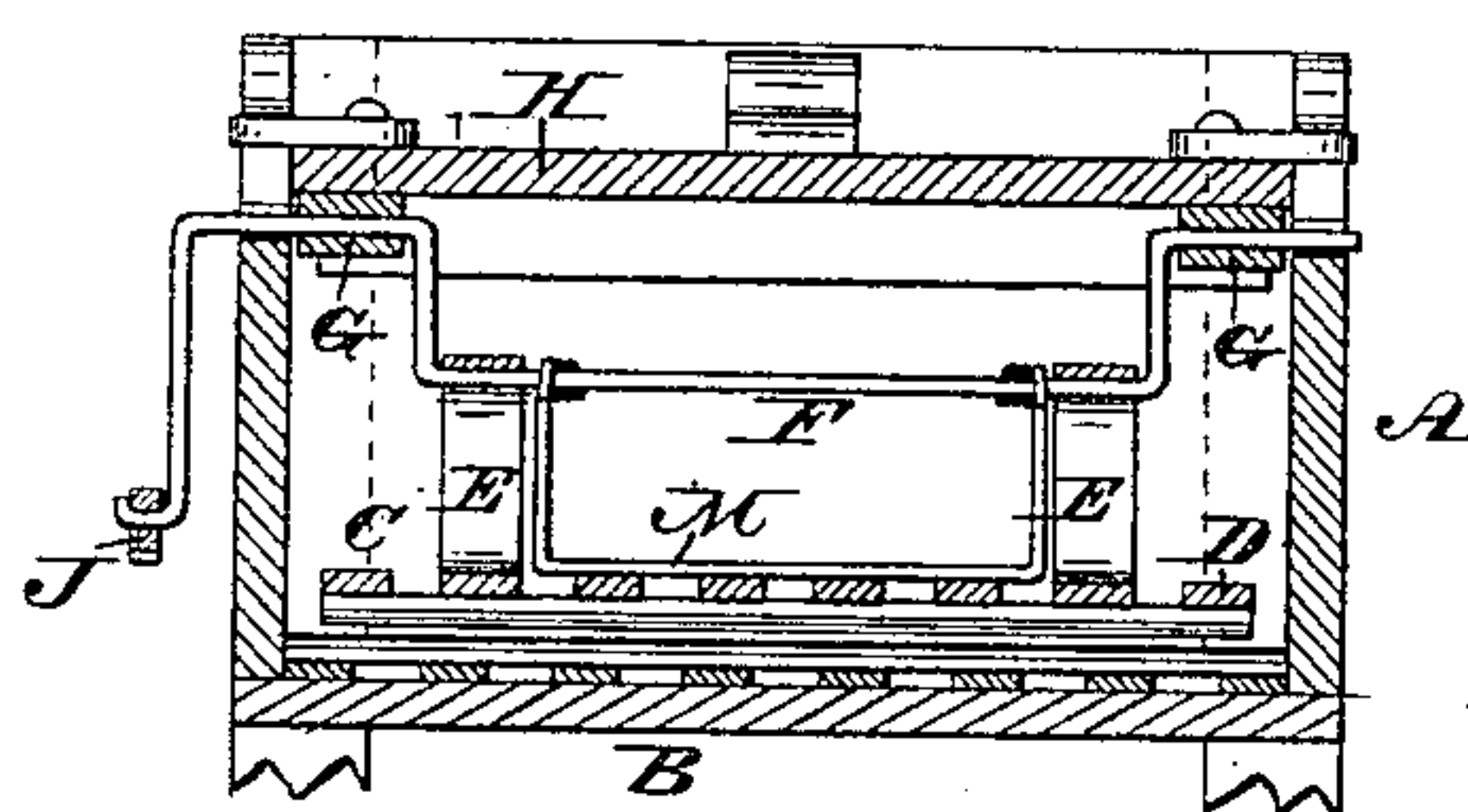


Fig. 4.



WITNESSES:

W. P. Grant,
L. Douville

INVENTOR

B. R. Hand.

BY

John A. Wiederheim
ATTORNEY

UNITED STATES PATENT OFFICE,

BENJAMIN R. HAND, OF CAMDEN, NEW JERSEY.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 362,740, dated May 10, 1887.

Application filed July 8, 1886. Serial No. 207,385. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN R. HAND, a citizen of the United States, residing in the city and county of Camden, State of New Jersey, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents an end view of a washing-machine embodying my invention. Fig. 2 represents a central longitudinal vertical section thereof in line $x x$, Fig. 1. Fig. 3 represents a top or plan view of the wash board or beater and connected parts. Fig. 4 represents a transverse vertical section in line $y y$, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a washing-machine having a wash-board which may yield to the thickness and irregularities of the article to be washed, and is subjected to pressure, as will be hereinafter fully set forth and claimed.

Referring to the drawings, A represents the box or tub of a washing-machine; and B, the bottom thereof, the latter being fluted, corrugated, or slatted, forming a rubbing-surface.

C represents a movable wash-board, rubber, or beater, the same being formed of fluted, corrugated, or slatted pieces of wood or other material, firmly connected at its center with a frame, D. Rising from the center of the frame D are vertical stirrups E, having vertical guideways, through which passes a crank-shaft, F, whose bearings G are on the under side of the lid H of the tub, said shaft receiving rocking motions from a pitman, J, a power-wheel, K, and suitable gearings, L, whereby motions are imparted to the wash-board in opposite directions. The crank-shaft is so constructed as to make a short movement, thus causing the movable wash-board to rub the clothes without folding up the same, which would happen if the crank-shaft had a long throw.

M represents a spring which is connected

with the crank-shaft F and bears on the upper side of the opposite ends of the board C.

If desired, rollers may be mounted on the ends of the spring, as shown by the dotted lines, Fig. 3.

The operation is as follows: The lid is raised and the wash-board follows the motion thereof, whereby the garments or other articles to be washed may be placed on the bottom rubber, B, the lid then being returned to its normal position. Power is now applied to the wash-board by the operation of the crank-handle of the gearing L, whereby the articles are subjected to the actions of the board and rubber, and thus effectually washed, the board being held to its work by means of the spring M, and is permitted to rise and fall, due to irregularities in the articles, either at its ends or parallel with the bottom rubber, this being permitted by the stirrups E, which are freely fitted to the crank-shaft F, and both oscillate and vertically move on said shaft, the pressure of the spring being continuous, owing to its connection with the crank-shaft, it being noticed that the latter is utilized as the means for holding the spring in position, so that the parts of the machine are simple, inexpensive, and compact.

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

A washing-machine having a wash-board, a stirrup which is secured to the center of said wash-board and having a vertical guideway, an operating crank-shaft which is freely fitted in said guideway of the stirrup, and a spring which is attached at its center to said crank-shaft and having its ends bearing against the ends of the wash-board, the several parts being combined and operating substantially as described.

B. R. HAND.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.