

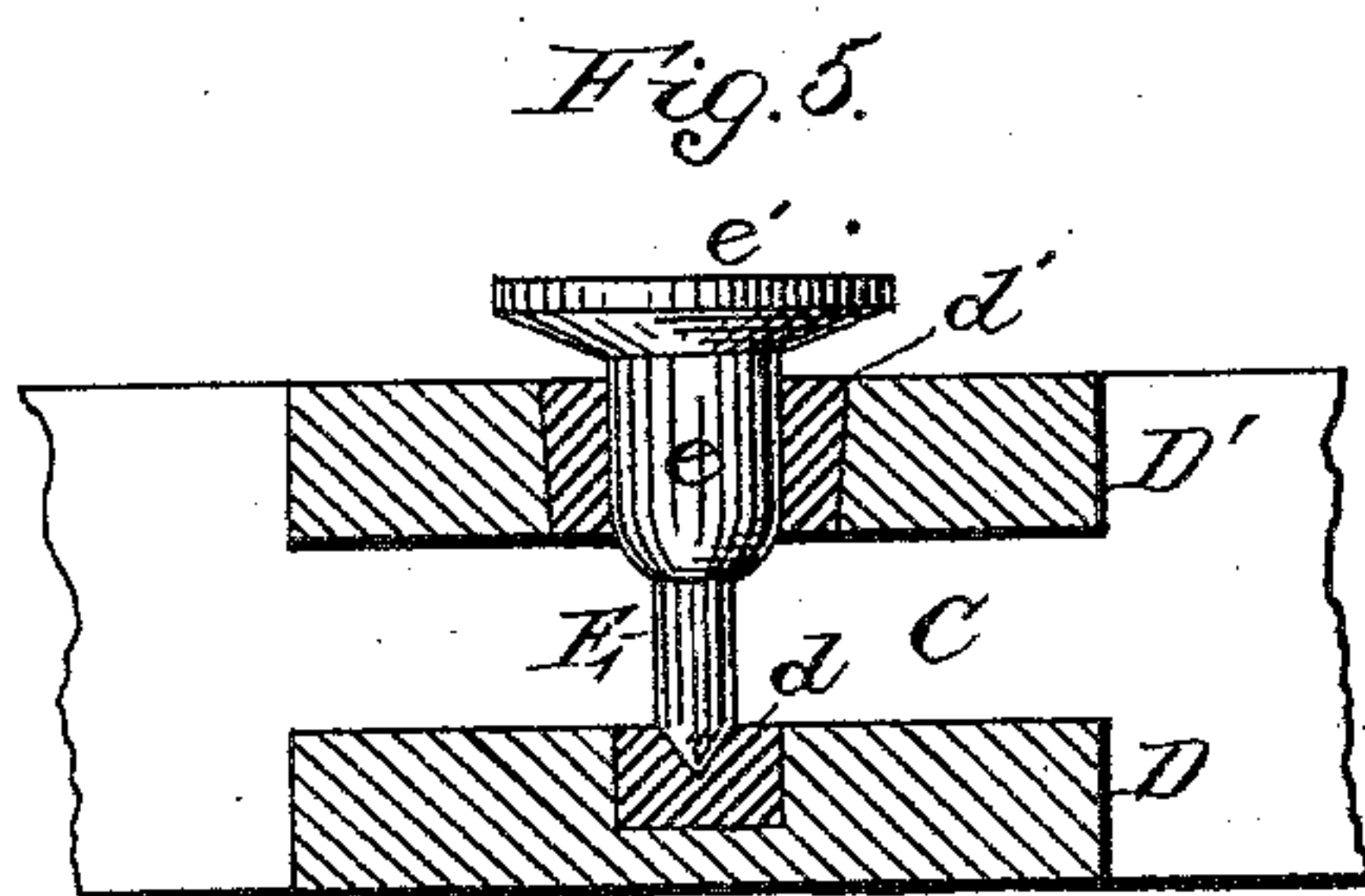
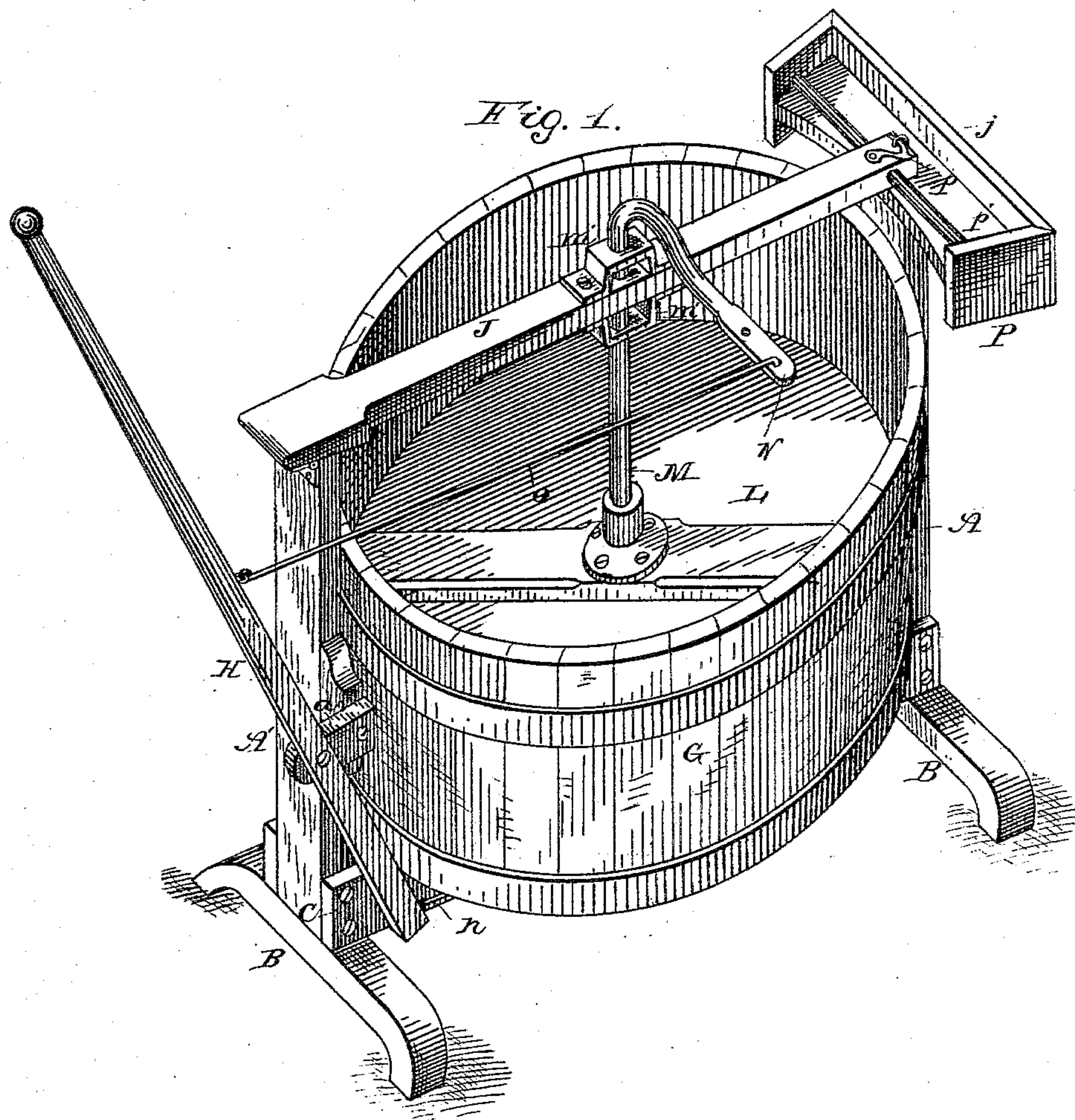
(No Model.)

2 Sheets—Sheet 1.

J. E. MITCHELL.  
WASHING MACHINE.

No. 281,111.

Patented July 10, 1883.



Witnesses:

J. W. Garner.  
W. S. Q. Haines.

Inventor:

John E. Mitchell  
per J. O. W. Cleary,  
Att'y.

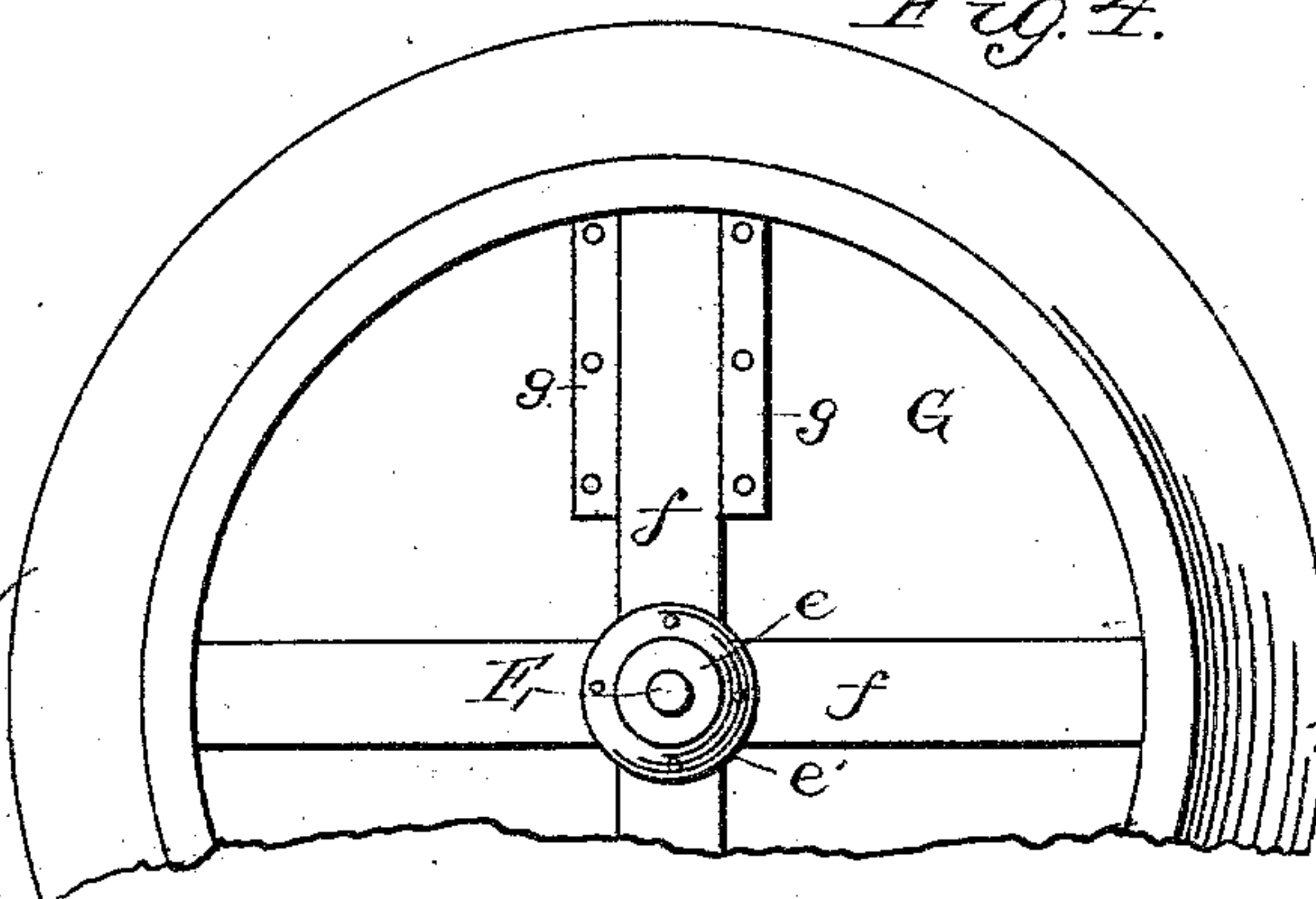
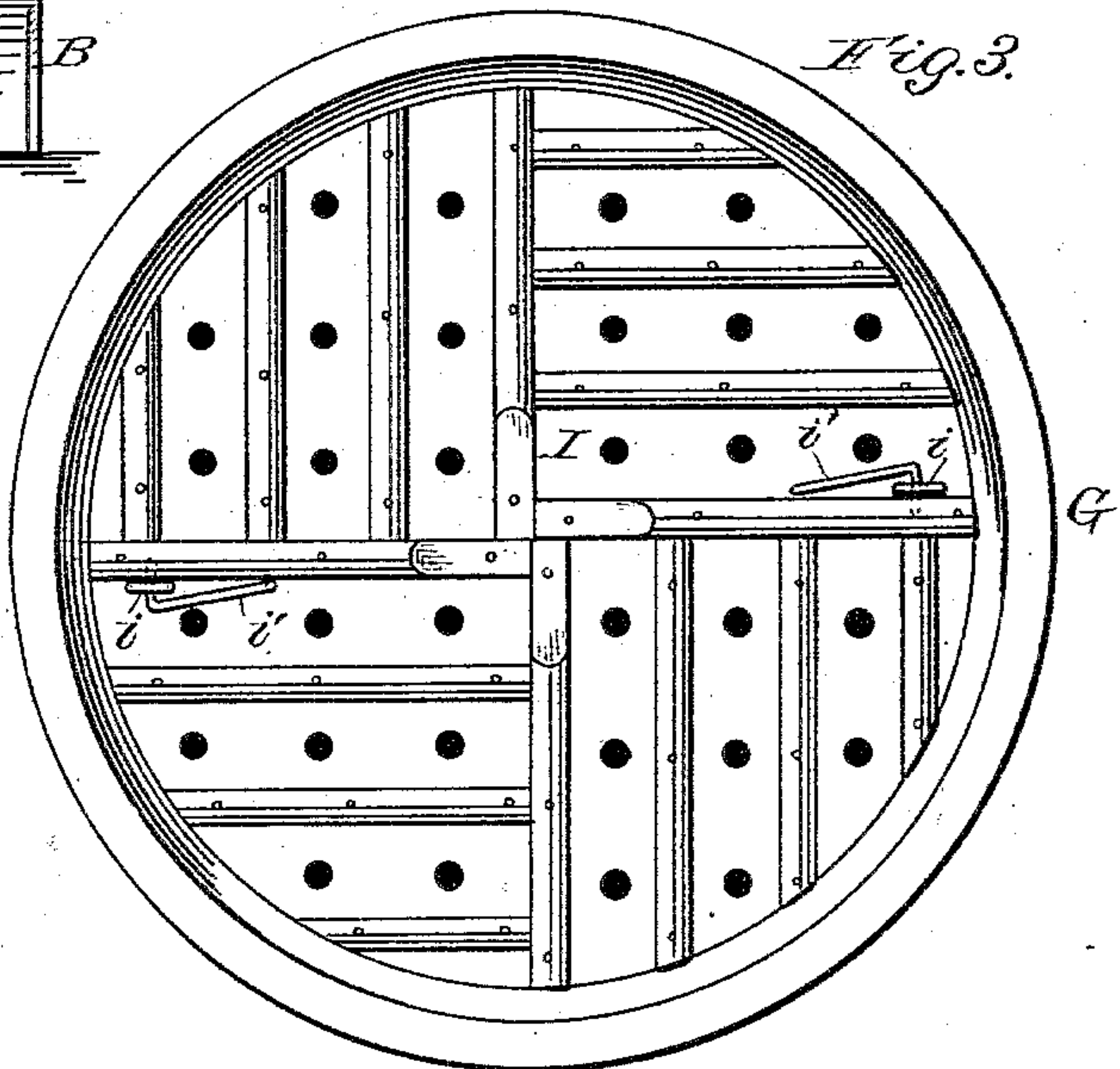
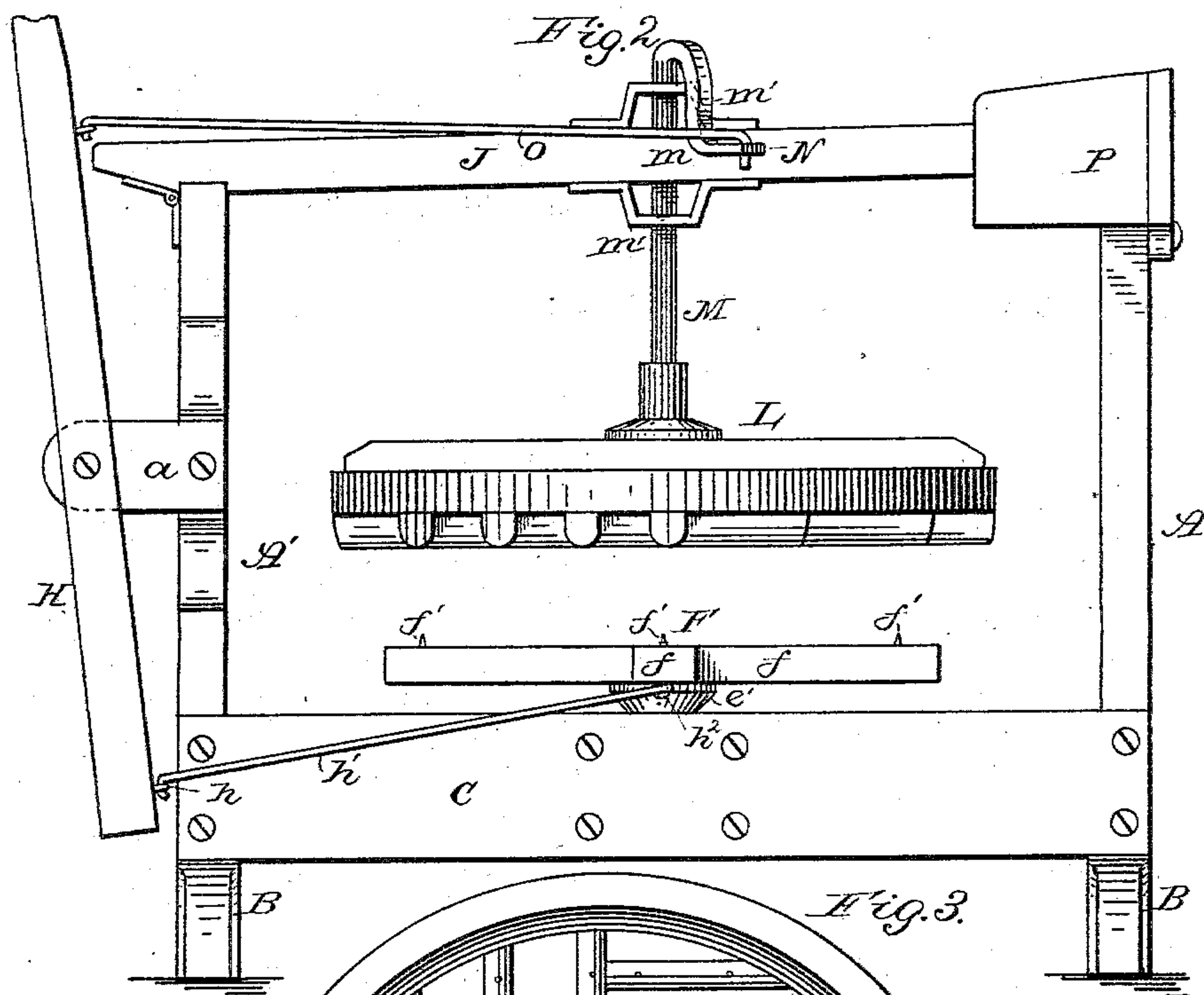
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per J. O. McElroy  
Att'y.



# UNITED STATES PATENT OFFICE.

JOHN E. MITCHELL, OF WINFIELD, KANSAS.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 281,111, dated July 10, 1883.

Application filed August 29, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. MITCHELL, of Winfield, in the county of Cowley and State of Kansas, have invented certain new and useful  
5 Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

10 My invention relates to washing-machines of the class known as "rotary-rubber machines," the object being to provide a machine of this character which will be of simple and durable construction, and adapted to impart an  
15 oscillating movement to the tub and an oppositely oscillating movement to the rubber by the employment of a single operating-lever.

A further object of the invention is to simplify and improve the construction of the machine, whereby the maximum rubbing action  
20 may be obtained with but little labor.

With these ends in view the invention consists in the features of construction and combinations of parts hereinafter described, and  
25 pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a machine constructed in accordance with my invention. Fig. 2 is a side view of the same with the tub removed. Figs. 3, 4,  
30 and 5 represent parts in detail.

The supporting-frame of the machine consists of two standards, A A', resting on base-blocks B and connected by cross-bars C C, the latter supporting centrally between them bearing-blocks D D'. The lower block, D, is recessed to receive a metallic bearing, d, which is centrally recessed to receive the point of the pivot E of the oscillating frame on which the tub rests. The block D' is provided with a  
40 central circular opening which receives a metallic ring or lining, d', within which bears the tapering portion e of the pivot E. An oscillating frame, F, consisting of two bars, f f, crossed at right angles to each other, forms a rest or support for the tub G. The frame F is provided with a pivot, E, on its under side, said pivot being provided with an annular flange, e', adapted to be rigidly secured to the frame, a tapering portion, e, and a point, e<sup>2</sup>.  
50 The frame is pivotally supported in the bearing-blocks, as above described. The tub G is provided on its under side with two parallel

cleats, g, between which fits one of the arms f of the frame F. The upper sides of all of the arms of the frame are provided with spurs f', 55 adapted to project into the tub, which is held by the cleats and spurs upon the oscillating frame.

To one side of the standard A' is secured a bracket, a, upon which is fulcrumed an operating-lever, H, provided at its lower end with a staple or loop, h, to which is secured one end of a pitman, h', the opposite end of which is secured to a pin or stud, h<sup>2</sup>, projecting from one of the arms of the frame F. 65

A rubber, I, is secured to the bottom of the tub by means of staples i, which project through slots of the rubber to receive hooks i', secured to the latter.

To the upper end of the standard A' is hinged 70 a bar, J, forming a support for the shaft of the rubber L of the machine. Said rubber may be of any preferred construction, and is secured to the lower end of a bent shaft, M, supported in a bearing, m, of the bar J, and held by guides m' m'. The shaft is bent at its upper end, as shown, to form an arm, N, the latter being perforated to receive one end of a pitman-rod, O, the opposite end of which is secured to the operating-lever above the fulcrum 80 of the latter. The shaft M may be raised and lowered, as desired.

The free end of the bar J is provided with a slot adapted to take over a staple, j, projecting from a box, P, secured upon the upper 85 end of the standard A, and is secured by a hook, p, of the bar. The latter is also provided with a cross-rod, p', which fits between the ends of the box P to further secure the bar in place. The box P also serves as a receptacle or holder for soap. 90

The bar J, carrying the rubber-shaft and rubber, may be raised to admit of the introduction of clothes to the tub, and when locked in place holds the clothes between the two rubbing-surfaces. The lever, by its pitman-connections with the frame F and rubber-shaft, operates to impart opposite oscillatory movements to the tub and rubber L, and thus to thoroughly wash the clothes. 95

It will be apparent that many slight alterations in the details of construction may be resorted to without departing from my invention, and hence I would have it understood 10



that I do not limit myself to the exact construction shown and described, but reserve to myself the right to make all such modifications in form and construction as may properly fall within the scope of my invention.

Having 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 a supporting-frame, of a horizontal oscillating frame consisting of crossed bars provided with spurs, a tub provided with cleats to receive one arm of the oscillating frame, a rubber, and means, substantially as described, for oscillating said frame and rubber in opposite directions.

2. The combination, with the supporting-frame provided with a two-part bearing, of an oscillating frame consisting of crossed bars and having a depending pivot, a tub provided with cleats adapted to receive one arm of the oscillating frame between them, a rubber supported within the tub, and a lever and pitmen adapted to rotate said rubber and frame in opposite directions, substantially as set forth.

3. The combination, with the oscillating frame supporting the tub, and consisting of crossed bars, and with the rubber-shaft and rubber, of an operating-lever and pitmen connected, respectively, to one arm of said frame and to the rubber-shaft, substantially as set forth.

4. The combination, with the standards of the frame, of a soap-box, P, a cross-bar, J, hinged at one end to one of said standards, while its opposite end is provided with a fastening device, *j p*, and transverse rod *p'*, the latter being adapted to fit snugly within the box to prevent lateral movement of the bar J, substantially as set forth.

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

JOHN E. MITCHELL.

Witnesses:

HIRAM BROTHERTON,  
HIRAM S. SIBER.