

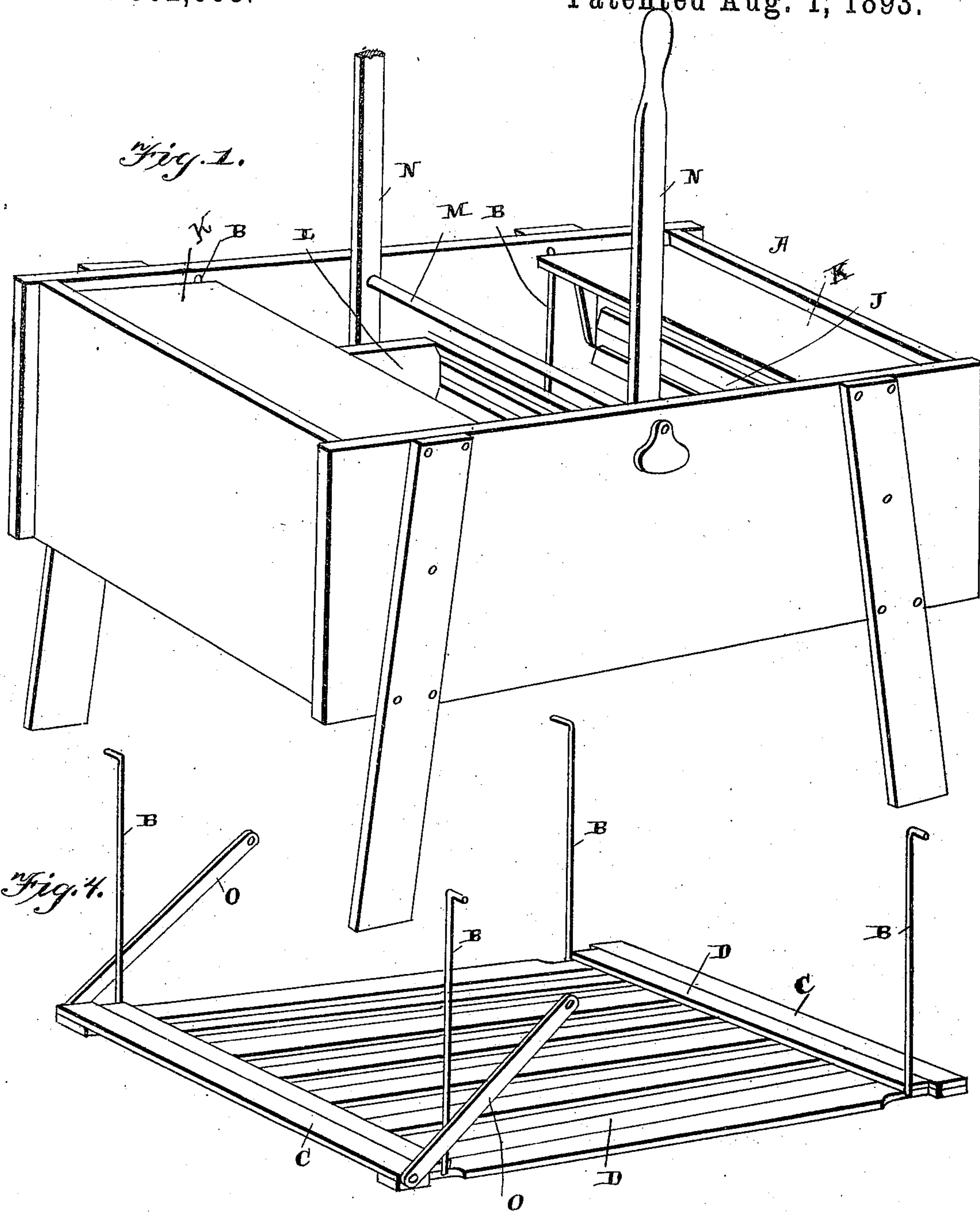
(No Model.)

2 Sheets—Sheet 1.

D. W. BOVEE.  
WASHING MACHINE.

No. 502,608.

Patented Aug. 1, 1893.



WITNESSES

Geo. E. Frech.

Roland A. Fitzgerald,

INVENTOR\_

D. H. Bovee

By  
Lehman Patterson, M.D.  
attys

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Fig. 2.

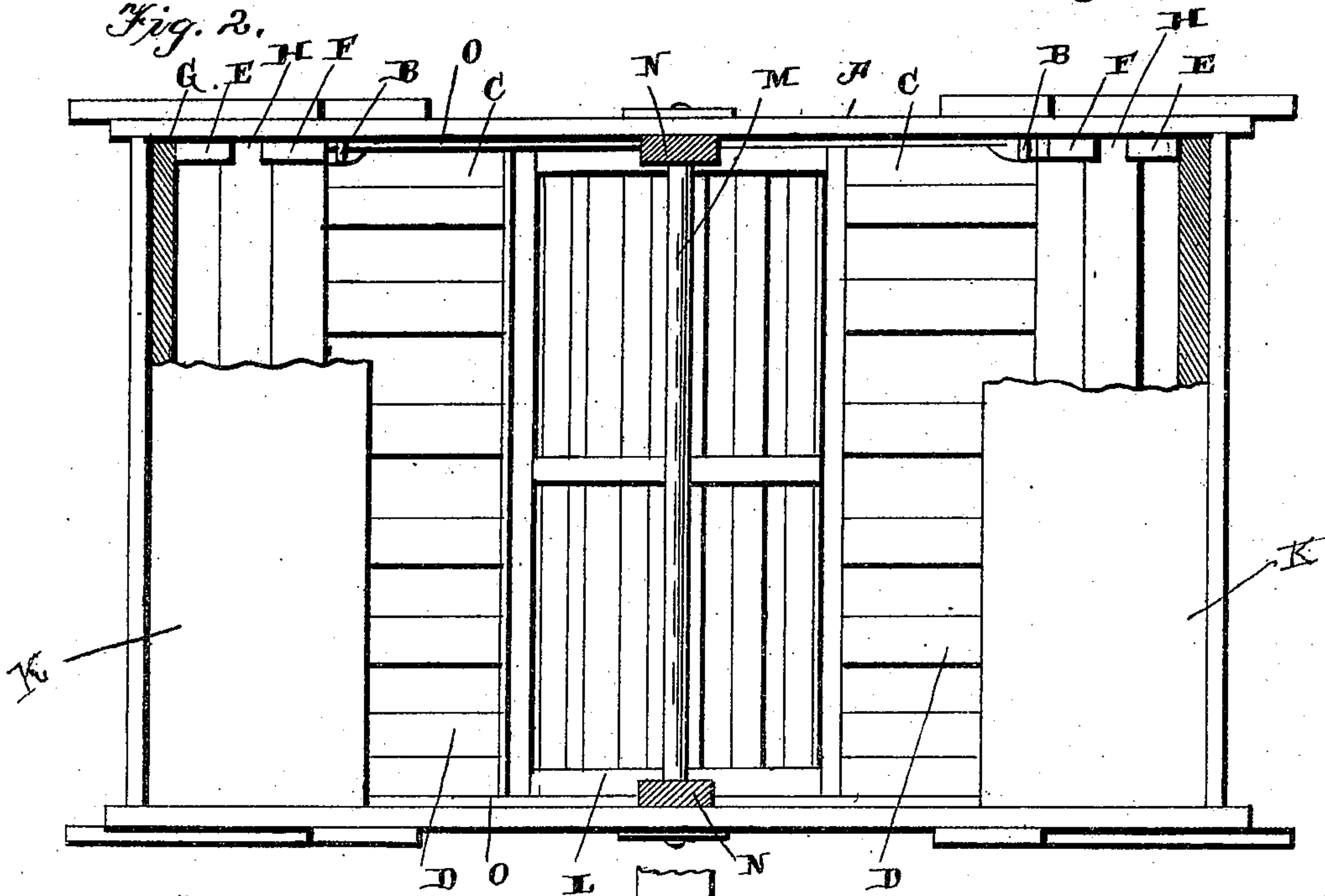
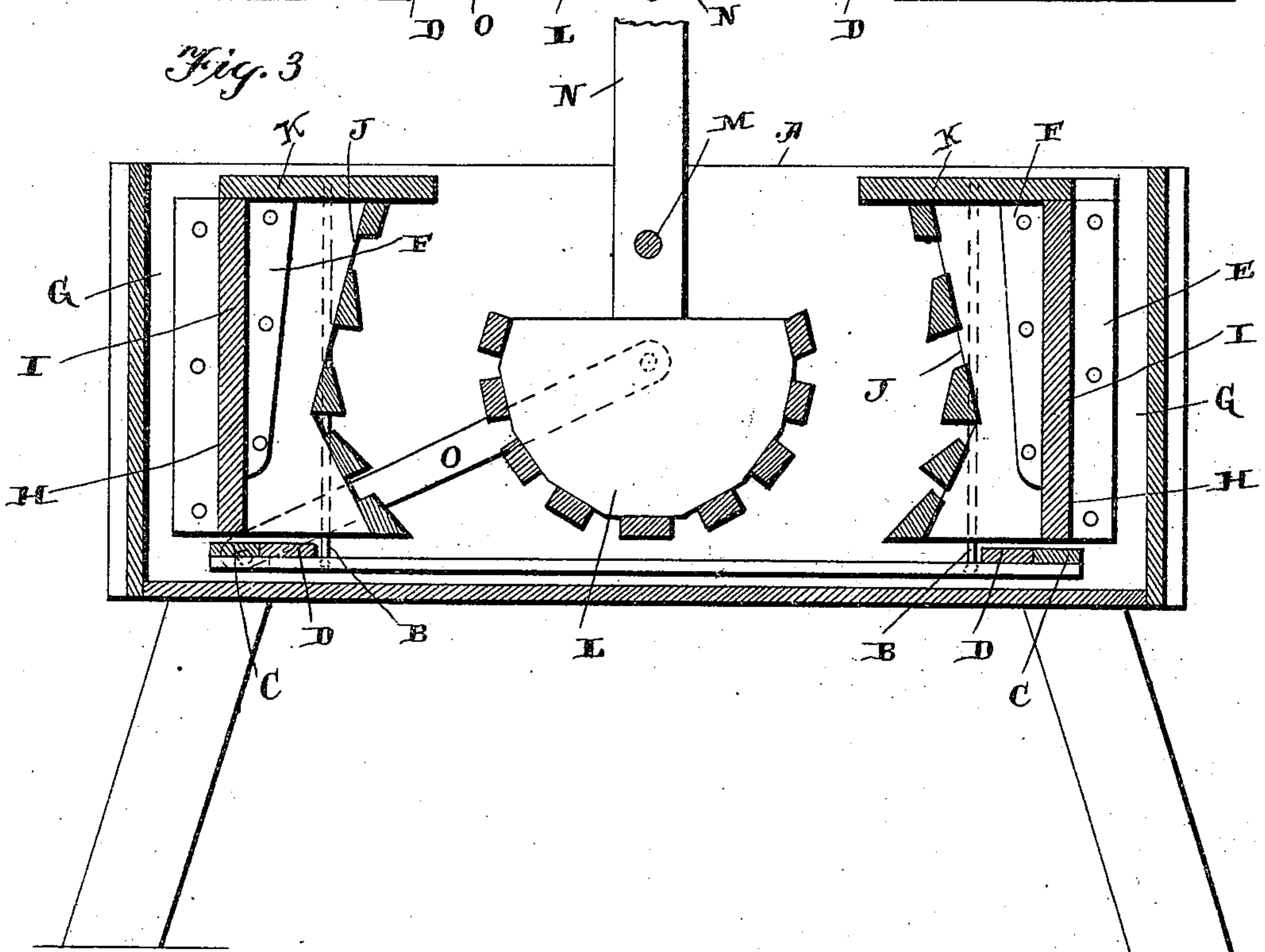


Fig. 3.



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# UNITED STATES PATENT OFFICE.

DAVID W. BOVEE, OF TAMA, IOWA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 502,608, dated August 1, 1893.

Application filed January 21, 1893. Serial No. 459,202. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID W. BOVEE, of Tama, in the county of Tama and State of Iowa, 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in washing machines; and it consists in the novel combination and arrangement of parts which  
15 will be fully described hereinafter, and more especially referred to in the claims.

The object of my invention is to provide a machine which is readily adjustable for either large or small washes, and one, the several  
20 working parts of which are easily removable so that the machine may be cleansed with little inconvenience.

Referring to the accompanying drawings,—  
Figure 1 is a perspective view of my improved machine. Fig. 2 is a plan view shown  
25 partly in section. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detached view of the swinging bottom.

A, designates the tank or tub which may  
30 be of any desired size and supported therein upon hangers B, is the frame C, upon which latter rests the removable portion D, of the swinging bottom. The hangers B, may be readily detached from the tub sides and the  
35 bottom removed, thus affording access to all parts of the tub for cleansing purposes. At each end of the tub upon opposite sides of the same are the vertical parallel strips E, and F, which form the guide ways G, and H, and  
40 supported in position by either of these guide ways are the removable end rubbing sections I, having curved and slatted front sides J. As will be seen the rear wall of the said end sections extends outward at each end suffi-  
45 ciently far to take either of the guides G, or H, and thus the said sections are brought near together or farther apart, the smaller space which is formed by the former movement of

the same being used for small washes while with them separated as far as possible, in the  
50 guides H, a large amount of clothing may be accommodated. The capping board K, for each end section also projects at its ends so as to rest on the upper ends of the strips E, and F, and thus support the said end sec-  
55 tions in the proper vertical positions, and entirely out of the way of the reciprocating bottom. The semi-cylindrical and slatted rubber L, is pivotally supported in the center of the machine upon the rod M, which latter is  
60 easily removable endwise, thus permitting an easy removal of the rubber. Operating bars N, project vertically from the rubber for the convenient operation of the machine. Links  
65 O, connect the rubber ends with the end of the frame C so that whenever the rubber is turned upon its pivotal rod the false bottom is vibrated. Thus it will be seen that cloth-  
70 ing beneath the rubber is subjected to oppositely moving rubbing surfaces while when the rubber has been turned sufficiently far the end rubber sections are reached and against these the clothes are subjected to a thorough rubbing. The removable portion  
75 D, of the swinging bottom renders an easy cleansing of the tub possible while at the same time it holds the clothing up from the dirt which settles in the bottom of the tub, and in addition to this it assists in the double  
80 rubbing operation to which the articles being washed are subjected.

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

1. The combination of a tub, a frame swung  
85 therein, a removable bottom supported by said frame, and a rubber pivotally supported over said bottom, substantially as shown and described.

2. In a washing machine, the combination,  
90 of a tub, frame C swung therein, removable frame D for said frame, a movable rubber arranged over the said bottom and links connecting the bottom C and the said rubber, substantially as shown and described.

3. In a washing machine the combination  
95

of a tub, a rubber pivoted therein, a swing-  
ing bottom beneath the agitator, a connec-  
tion between the latter and the rubber, strips  
E and F upon opposite sides of the interior  
5 of the tub forming guideways, removable  
rubbing sections, and capping boards there-  
for which project at their ends so as to rest  
on the upper ends of said strips so as to sup-

port said sections, substantially as shown and  
described. 10

In testimony whereof I affix my signature in  
presence of two witnesses.

DAVID W. BOVEE.

Witnesses:

W. J. POTTER,

WILLIAM H. PALMER.