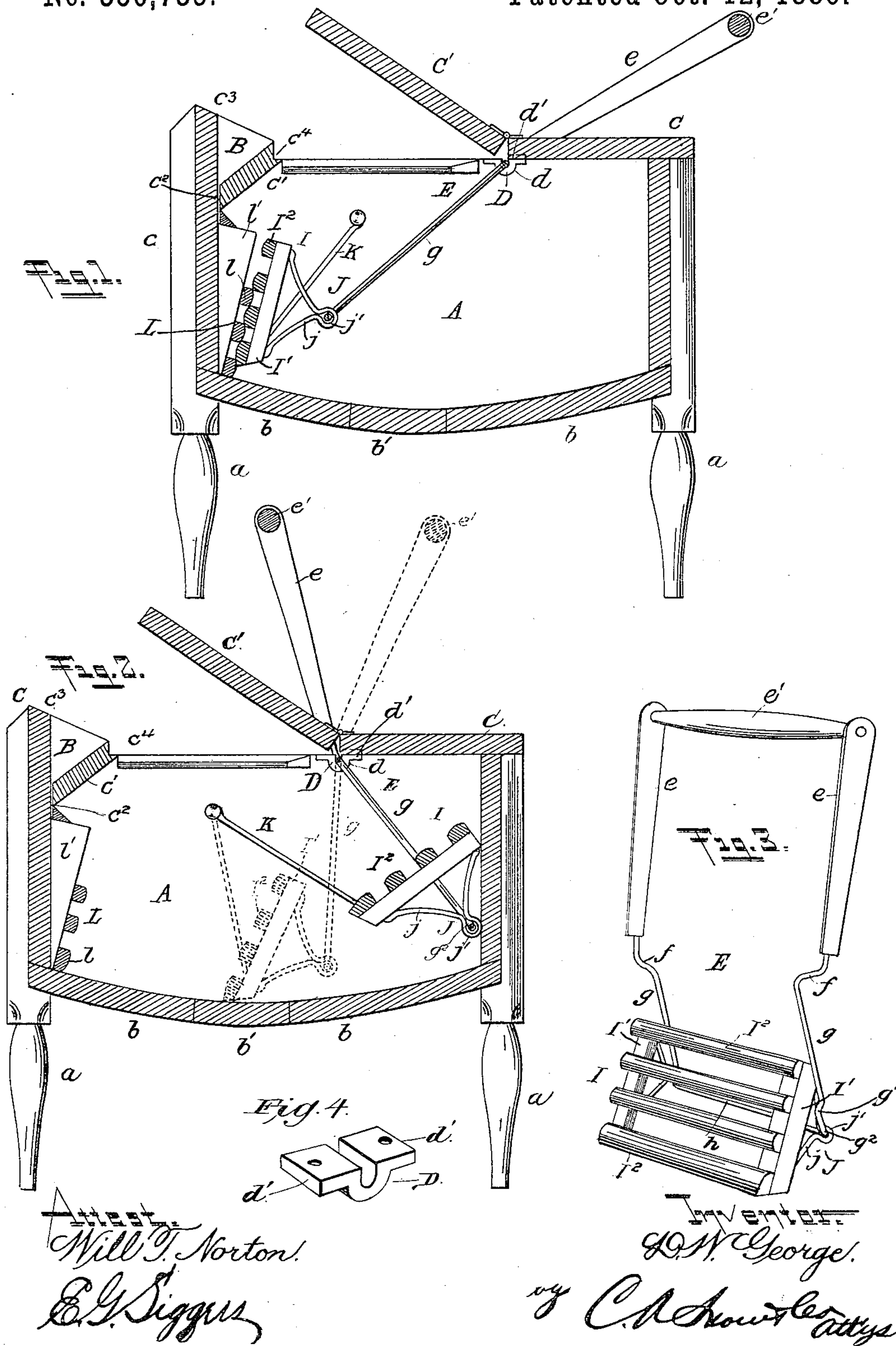


(No Model.)

D. W. GEORGE.
WASHING MACHINE.

No. 350,735.

Patented Oct. 12, 1886.



UNITED STATES PATENT OFFICE.

DAVID WASHINGTON GEORGE, OF MILTON, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 350,735, dated October 12, 1886.

Application filed March 11, 1886. Serial No. 194,850. (No model.)

To all whom it may concern:

Be it known that I, DAVID WASHINGTON GEORGE, a citizen of the United States, residing at Milton, in the county of Van Buren and State of Iowa, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in washing-machines; and it consists of the peculiar and novel construction and combination of parts, substantially as hereinafter fully set forth, and specifically pointed out in the claim.

The primary object of my invention is to provide a washing-machine with improved means whereby the swinging rubber is so supported and operated that it is turned or adjusted out of a vertical position into a horizontal position in its retrograde movement away from the stationary rubber, whereby all liability of the clothes or fabrics being packed against the receptacle wall by the return movement of the swinging rubber is avoided, and the water is kept in a constant state of agitation, so that the fabrics are whirled around to be in position to be caught by the swinging rubber, and forced thereby against the stationary rubber.

A further object of my invention is to provide improved means whereby the bail and swinging rubber can be easily and readily removed from the suds box or receptacle, provide improved rubbers which shall come flat against each other, and permit of the free passage therethrough of the water, and to provide an improved machine which shall be very simple, strong, and durable in construction, thoroughly effective for the purposes designed, easy of operation, and cheap and inexpensive of manufacture.

In the accompanying drawings, Figure 1 is a vertical longitudinal central sectional view, showing the rubbers in contact with each other. Fig. 2 is a like view showing the swinging rubber turned or adjusted to its horizontal position in full lines, and in dotted lines the position thereof at a portion of its stroke. Fig. 3 is a detail perspective view of the bail and swinging rubber. Fig. 4 is a detail view of one of the bearings for swinging levers.

Referring to the drawings, in which like letters of reference denote corresponding parts

in all the figures, A designates the suds box or receptacle, which is preferably rectangular in form and provided with the upright legs *a* at its corners, and the bottom of the suds-box has the inclined end sections, *b*, which are arranged at diverse angles to each other and on opposite sides of a central curved section, *b'*. The front end wall, *c*, of the suds-box is extended above the plane of the side walls, and an inclined or angularly-disposed bottom, *c'*, is arranged in rear of the front wall, *c*, so as to provide a longitudinal trough, B, with a space between its lower edge and the front wall to provide a discharge-opening, *c''*, for the passage of water from the trough into the suds-box, the ends of the trough being closed by inclined upwardly-projecting walls *c'''*, that are extended from the side walls and have notches or shoulders *c''''* cut therein.

C C' designate the sections of the cover to the suds-box. The section C of the cover is permanently and rigidly secured to the walls of the receptacle, and section C' is hinged to the section C, so that it is adapted to be folded back over the same to permit egress to the suds-box, or to be folded to rest on the edges of the side walls, so that its front edges will abut against the shoulders *c''''* and the inclined bottom *c'*, so as to tightly close the suds-box.

The side walls of the receptacle are provided with recesses *d*, in which are fitted journal or bearing plates D, which are open at their upper faces, and provided with lateral plates *d'*, that are secured to the upper edges of the side walls, one of the plates resting beneath the inner edge of the rigid top section C, so that the opening therein is left free when the top section C' is thrown back, whereby the bail E can be readily removed when desired. The upper free ends of the bail E are provided with handles *e*, which are connected at their free ends by a cross-bar, *e'*, so that the handle can be conveniently grasped by hand to operate the machine. The bail is further provided with horizontal arms *f*, that form trunnions or shafts for the support of the bail, and which are journaled in the open bearings D, so that they can be readily removed. The bail comprises the vertically-disposed arms *g*, and the horizontal arm *h*, connecting the arms *g*, and each of the arms *g* are provided at their lower ends with inwardly-extending horizontal por-

tions g' , arranged at a right angle thereto, and, further, with a right-angled vertical portion, g^2 , which connects with the horizontal cross bar or arm h .

5 I designates the swinging rubber, which comprises the side bars, I' , and the cross-bars I'' , which are secured at their ends to the side bars, and equidistant apart, so as to provide intermediate spaces for the free and unob-
10 structed passage of the water.

J designates the supports for the swinging rubber, which are secured to the side bars thereof, and comprise the inclined arms j , that are formed with the eyes or bearings j' , in
15 which are journaled the horizontally-disposed arm of the swinging bail, the bearings j' of the supports resting against the portion g^2 of the bail, which prevents lateral play of the swinging rubber. It will be observed that
20 the bearings of the supports are arranged at the middle of the vertical axis of the swinging rubber, and that when the rubber is at the full rearward stroke the upper edges thereof pass or project beyond the vertical arms of the
25 bail, and, in order to prevent the upper edges of the rubber from striking the vertical arms of the bail, the latter are provided with the angularly-disposed ends $g' g^2$.

K designates the links for supporting the
30 free lower edges of the swinging rubber, two of the links being provided. The lower end of each link is pivoted to the side bars, j , of the rubber, and the upper end thereof to the side walls of the washing-machine, and when
35 the rubber is moving rearwardly these links elevate the lower ends of the swinging rubber, so that the upper edge thereof is drawn down and the bearings j' turn on the horizontal arm of the bail, whereby the said rubber is caused
40 to assume an approximately-horizontal position, so that it will not catch the fabrics in its retrograde movement to pack and jam the

same against the rear end wall of the receptacle.

L designates the stationary rubber, which
45 comprises a series of cross-bars, l , which are spaced apart to permit the free passage there-through of water, and two or more upright bars, l' , which are tapered longitudinally and secured with their larger ends uppermost to
50 the front end wall of the suds-box, so that the rubber L is presented in an inclined position to the action of the swinging rubber and the fabrics.

The operation of my invention will be read-
55 ily understood from the foregoing description, taken in connection with the drawings.

A wringer of any class may be secured up-
on the front end wall of the receptacle after
60 the fabrics have been washed, to compress the surplus water therefrom, and the water falls into the trough and escapes from thence into the suds-box.

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

In a washing-machine, the combination of
a suds-box, a rigid inclined rubber therein, a
bail journaled in the said suds-box, a swinging
70 rubber having the supports pivotally mounted on the bail, and the links pivoted to the suds-box at a point between the rigid rubber and the journals of the swinging rubber, and to the
lower free edge of the swinging rubber, for ele-
75 vating the lower end thereof in its retrograde movement, substantially as described.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
presence of two witnesses.

DAVID WASHINGTON GEORGE.

Witnesses:

L. L. HOTCHKISS,
E. M. LANK.