2 Sheets--Sheet 2.

J. H. CARROLL.

Washing-Machine.

No. 166,185. Patented Aug. 3, 1875.

Fig. 2.

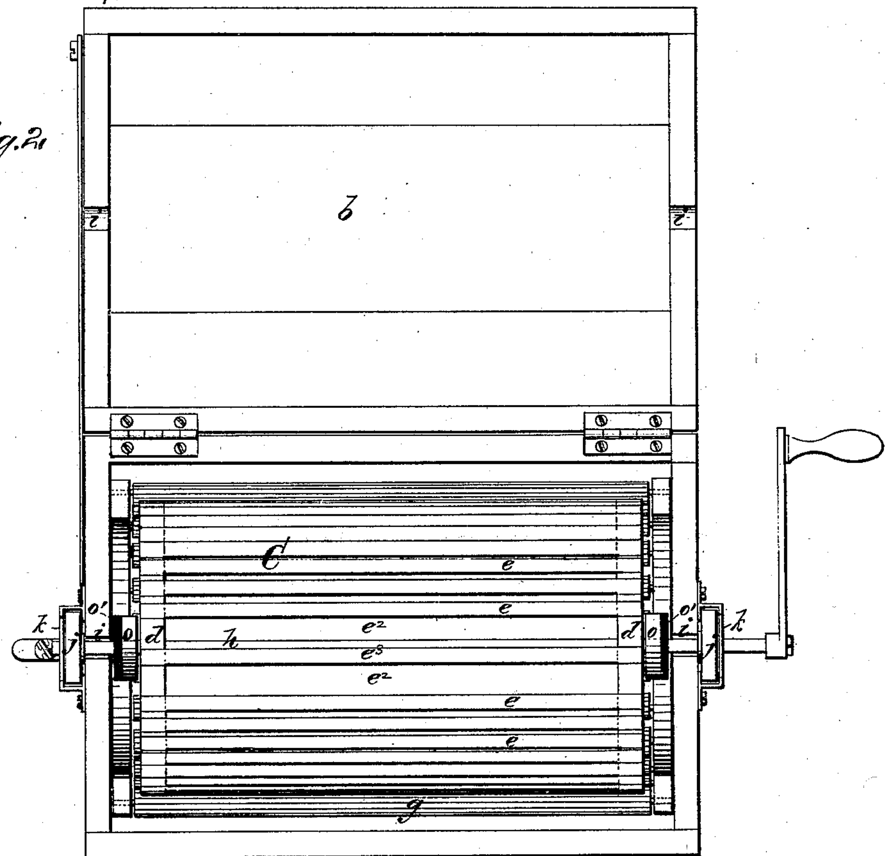
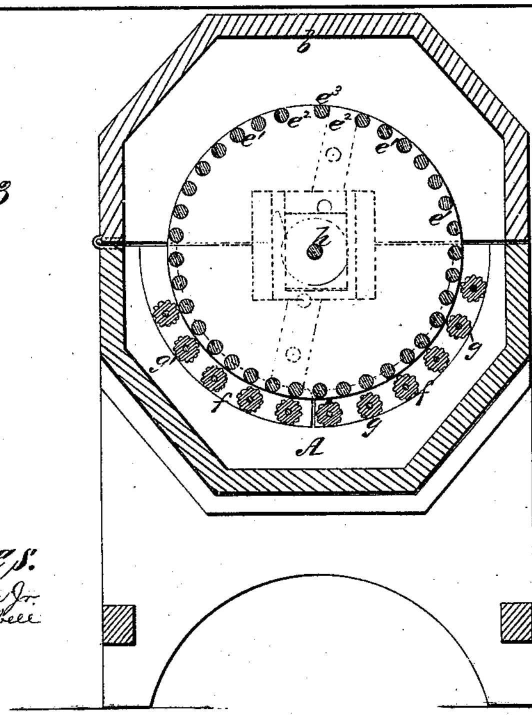


Fig. 3



Witnesses:
James Martin Jr.
J. N. Campbell

Inventor:
John H. Carroll
by
Mason, Fenwick & Lawrence
Attys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

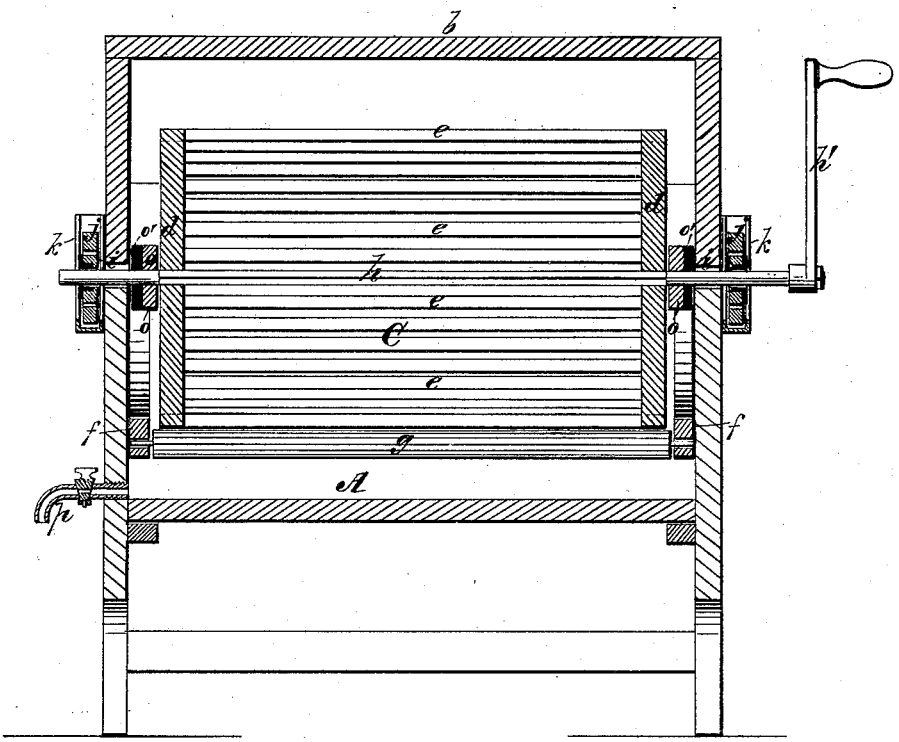
2 Sheets--Sheet 1.

J. H. CARROLL.

Washing-Machine.

No. 166,185. Patented Aug. 3, 1875.

Fig. 1



Witnesses.
James Martin Jr.
J. N. Campbell.

Inventor.
John H. Carroll,
by
Mason, Fennick & Lawrence
attys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN H. CARROLL, OF DUBUQUE, IOWA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **166,185**, dated August 3, 1875; application filed November 9, 1874.

To all whom it may concern:

Be it known that I, JOHN H. CARROLL, of Dubuque, county of Dubuque and State of Iowa, have invented new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a longitudinal vertical section of my machine; Fig. 2 a top view, and Fig. 3 a cross-section.

A is a box made in the form indicated in the drawings having a hinged cover, *b*, which is closed, as represented in Figs. 1 and 3, when the operation of cleansing clothes is performed. C is a cylinder, composed of disks *d*, to the peripheries of which rounded rods *e* are fixedly attached, so as to leave intervening spaces between them for the circulation of the suds during its rotation in the act of washing. These rods *e* surround the cylinder with equal spaces e^1 between them, save at e^2 e^2, at which points two of the rods *e* are omitted, in order that garments may be attached to a rod, which I designate as e^3, between the spaces e^2. Beneath this cylinder I secure to the inner ends of the box or tub A segmental pieces *f*, to which a series of fluted rollers *g* are applied, as shown, which rollers are free to rotate when the garments being washed are passed over them by the revolutions of the cylinder C. The cylinder C is provided with a central shaft, *h*, having a crank, as at *h'*, to turn it by. This shaft has its bearings upon the end boards of the tub, as at *i*, and also through rubber slide-blocks *j j*, which fit in boxes *k k*, so formed as to retain the slide-blocks in place, but allow them to be elevated from contact with the bottom of the boxes *k*, when a mass of clothes passes between the cylinder C and the series of fluted rollers *g*, during which act these blocks serve as the only bearings for the shaft *h* to retain the cylinder in its proper relation to the tub A. It will be observed that by this application of the sliding blocks *j j* one end of the cylinder may in the act of washing, owing to a mass of clothes beneath it, be elevated more than its opposite end, and still carry on the operation of washing, and said blocks being non-corrodible are not liable to the objections pertaining to the use of the metal springs, which are in some washing-machines used in connection with a rotating cylinder. On the shaft *h*, between the disks *d d* and the inner face of the ends of the tub or box A, and directly in line with the bearings *i i*, are fitted circular packings *o*, faced on one side, as at *o'*, with leather or rubber. The object of such packings is to prevent the escape of steam and water from the tub, while the operation of washing clothes is proceeding.

In operating the machine garments are passed through the openings e^2 e^2 and around the bar e^3 in such manner as to allow the main portion of the garment to rest over and upon the bars *e* immediately in front of the operator. The crank is then turned, and the garments, by the rotation of the cylinder C, are drawn between the bars *e* and fluted rollers *g*, such act being continued until the clothes are sufficiently rubbed. This being done the dirty water is then drawn off from the tub A through the faucet *p*, and clean water substituted, after which the clothes may be passed into the cylinder C through the openings e^2, when, by the further rotation of the cylinder, the clothes may be effectually rinsed.

What I claim as my invention is—

The rubber sliding blocks *j* in combination with their inclosing-boxes *k*, and the cylinder C, substantially as and for the purpose described.

JOHN H. CARROLL.

Witnesses:
F. MCLAUGHLIN,
WM. F. POWERS.