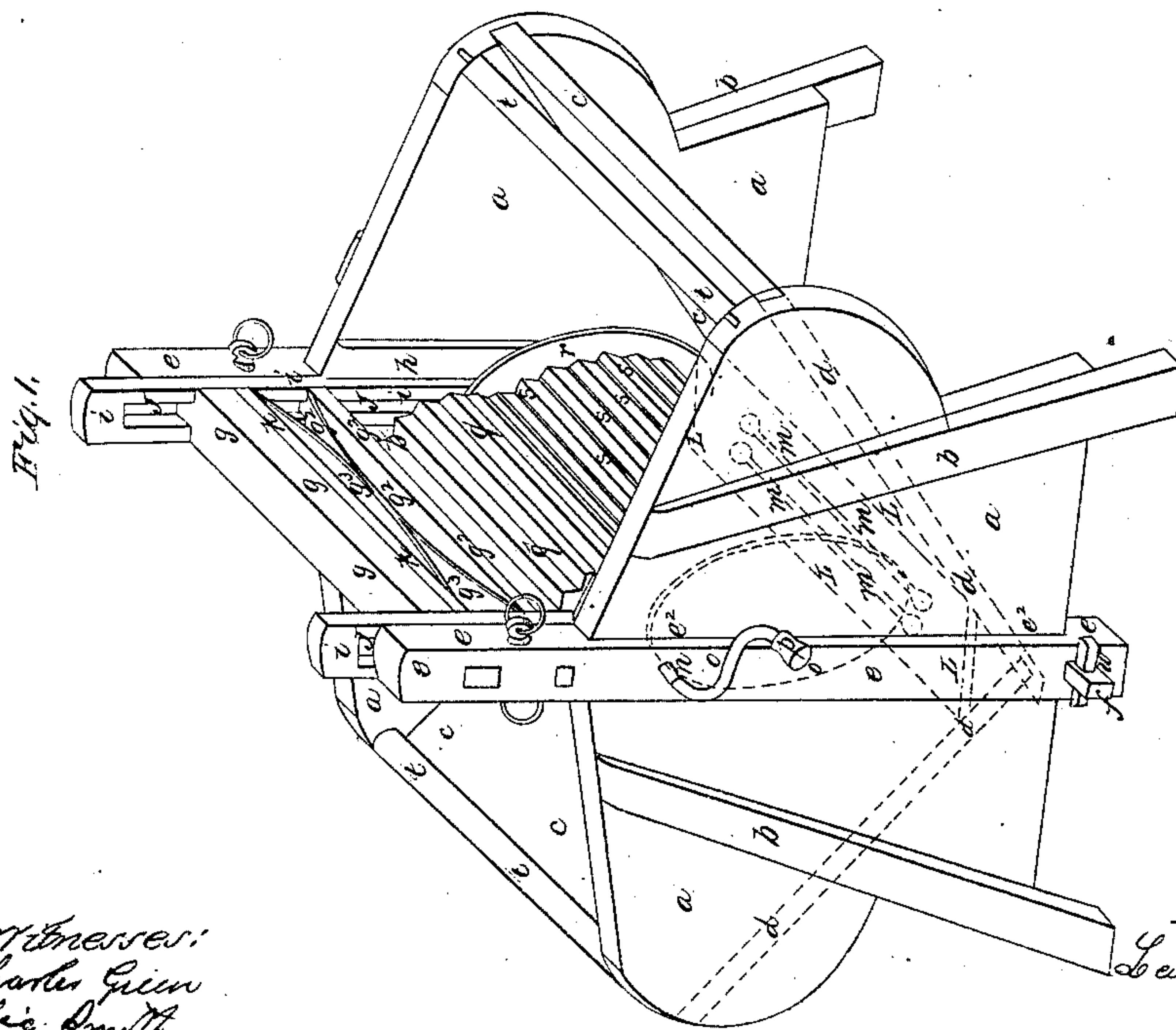
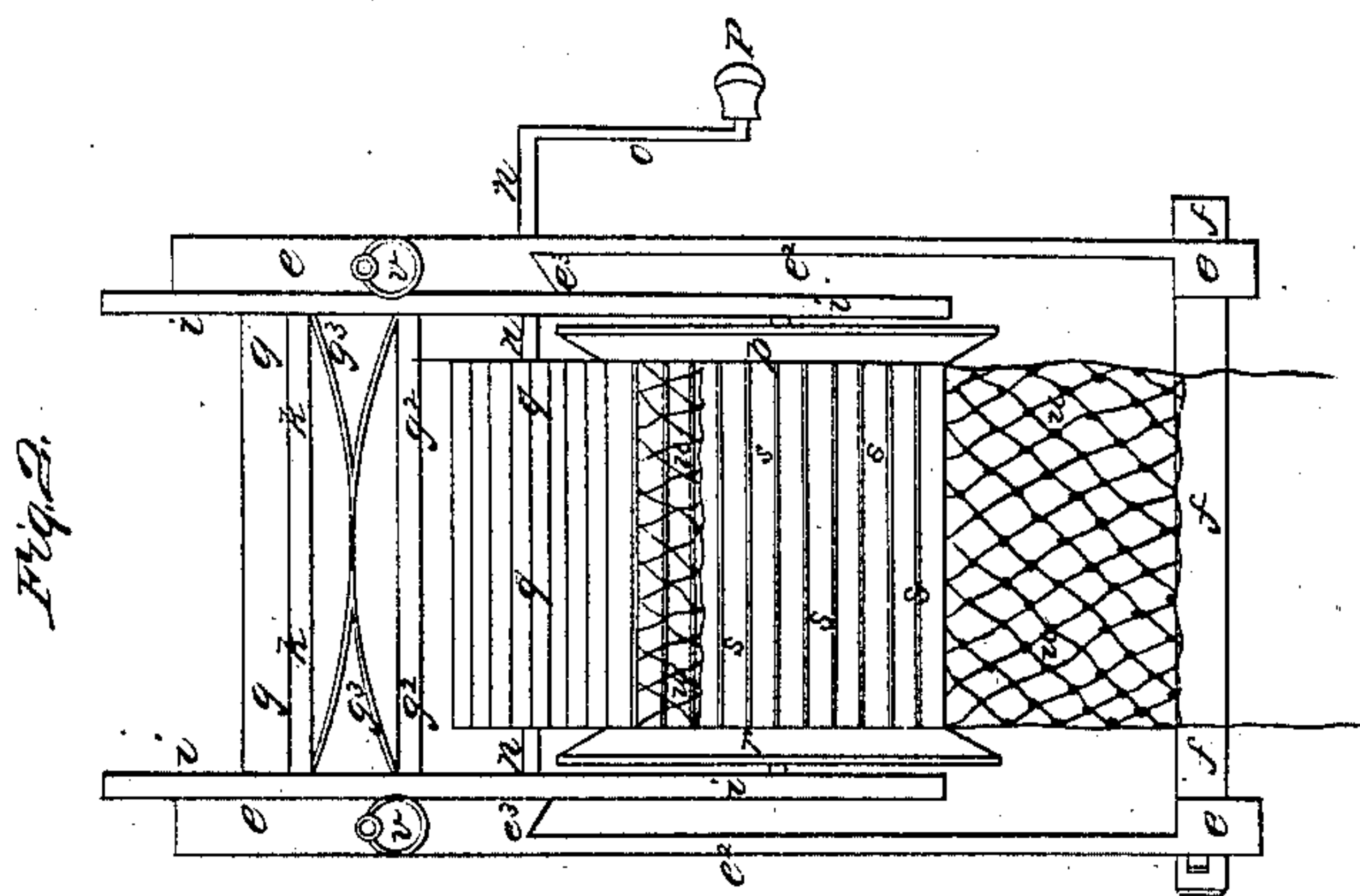


L. Allen,

Washing Machine,

N^o 21,784.

Patented July 19, 1859.



Witnesses:
Charles Green
Eli Smith

Inventor:
Lewis Allen

UNITED STATES PATENT OFFICE.

LEWIS ALLEN, OF SLEEPY CREEK, VIRGINIA.

WASHING-MACHINE.

Specification of Letters Patent No. 24,784, dated July 19, 1859.

To all whom it may concern:

Be it known that I, LEWIS ALLEN, of Sleepy Creek, in the county of Morgan and State of Virginia, have invented and made certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view of the machine. Fig. 2, is a view of the cylinders and frame detached from the washing box or water receptacle.

The nature of my improvements and operation thereof, I describe as follows:

In Fig. 1, a, a, a, a represent side boards, attached to suitable legs b, b, b . The side boards are provided with lateral grooves or channels, sloping inwardly, toward each other, and in said grooves are fitted sloping bottoms, c, c, c, c , and at the dotted lines d, d, d, d , Fig. 1. Across the sloping bottom is arranged a detachable grating indicated by the dots $L, L—M, M$, Fig. 1. This grating is designed to keep the clothes off the sedimentary deposit in washing.

To the outside of the sideboards a, a, a, a , are connected upright strips or timbers e, e, e, e , sawed or shaved out thin at $e^2—e^2$, and fitted on to the side boards, as indicated at $e^3—e^3$, and keyed together by a bottom cross rail f, f, f, f , and a top rail g, g , and also a central rail $g^2—g^2$.

On the inside of the side boards, are attached upright strips h, h , forming grooves or ways, in which is arranged a vertical sliding frame, formed of the upright rails i, i , and provided with longitudinal slots, J, J, J , in which are fastened the ends of a cross strip k, k . Between said strip, and the central rail $g^2—g^2$, are two bowed, or half elliptical springs $g^3—g^3$. Through the fixed frame $e, e—e^2, e, e, e^2$ runs a rod or shaft n, n, n , formed with a crank handle and knob O, P ; said rod passes through a fluted, or ridged cylinder q, q . To the lower end of the sliding frame i, i , is suspended a larger cylinder or drum with closed ends, or heads x, x , extending across from which, run parallel, beveled edge rods or bars, s, s, s, s , arranged about half an inch or so apart, forming a surrounding, or encompassing grating.

To each end of the washing box or water receptacle are small rollers t, t , connected, so as to be readily detached. Around the cy-

lindrical grating as shown in Fig. 2, is employed a detachable webbing or network u, u, u , and on each of the sides of the uprights e, e, e, e , are rings v, v , being designed to support rollers, to which may be attached a canvas, suitable to answer as a rolling up covering for the washing box.

The operation of my washing machine is as follows, viz: Sufficient water and soap being put into the washing box, the clothes are arranged upon the main cylinder $r, r—s, s$ and the network u, u , adjusts over the clothes and the ends of the net held together by being tied. The crank n, O, P , is turned, when the cylinders $q, q—s, s$, rotate inwardly toward each other, carrying the clothes between them. The upper cylinder $q, q—$ bearing down on the clothes by the action of the springs $g^3—g^3$, and thereby pressing, and squeezing the clothes against the grating or open bars of the main cylinder $r, r—s, s$, and in the revolving thereof, the clothes are pressed, squeezed, and dipped, and the dirt removed therefrom the netting preventing the clothes from falling off the cylinders.

When large, heavy articles, such as blankets, coverlets, and carpets are to be washed, the netting is extended out over, and around the rollers $t—t, t$, and the ends connected, thus forming an endless apron; and in the washing of such heavy articles they are pinned onto the upper surface of the endless apron, and instead of passing down to be saturated within the washing box, suitable tubs or other receptacles containing suds and clear water, are arranged on the outside at each end of the washing machine, and as the cylinders are revolved to and fro, or back and forth instead of entirely around, the articles are thereby alternately pressed and squeezed, and passed out at each end and over the rollers $t, t—t, t$, and dipped and rinsed in the tubs at the ends of the machine.

By the use of my washing machine, all abrasion, or wearing away of the articles washed is prevented, and from the largest to the smallest can be washed thoroughly, and with the least possible labor and greatest facility.

A reference to Fig. 2 will show, that the whole of the washing, rubbing, and squeezing devices are detachable from the washing box, by simply driving out the key or wedge w , and detaching the bottom confining rail f, f, f .

A spigot or outlet can be provided in con-

nection with the bottom of the washing box so as to draw off the dirty water and residuum when desired.

Having described the construction, nature, and operation of my improvements, and being well aware that fluted, and ridged rollers or cylinders, and pressure springs have been employed in connection with washing machines, therefore such devices in themselves I entirely disclaim. But

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The construction of the open hollow washing, rinsing, and dipping cylinder, com-

posed of a series of bars $r, r-s, s$ — placed at regular intervals from each other, and provided with an open net work u, u , as described.

2. I also claim in combination therewith the fluted, or ridged, pressure, squeezing cylinder q, q , and detachable framing $e-e^2-f, f-g, g-g^2, g^2-h, h-i, i-k, k$ — when arranged, used, and operated in the manner substantially as set forth and described.

LEWIS ALLEN. [L. s.]

Witnesses:

CHARLES GREEN,
ELIAS SMITH.