(No Model.)

M. E. CHURCHILL.

WASHING MACHINE.

No. 506,470. Patented Oct. 10, 1893.

Fig. 1.

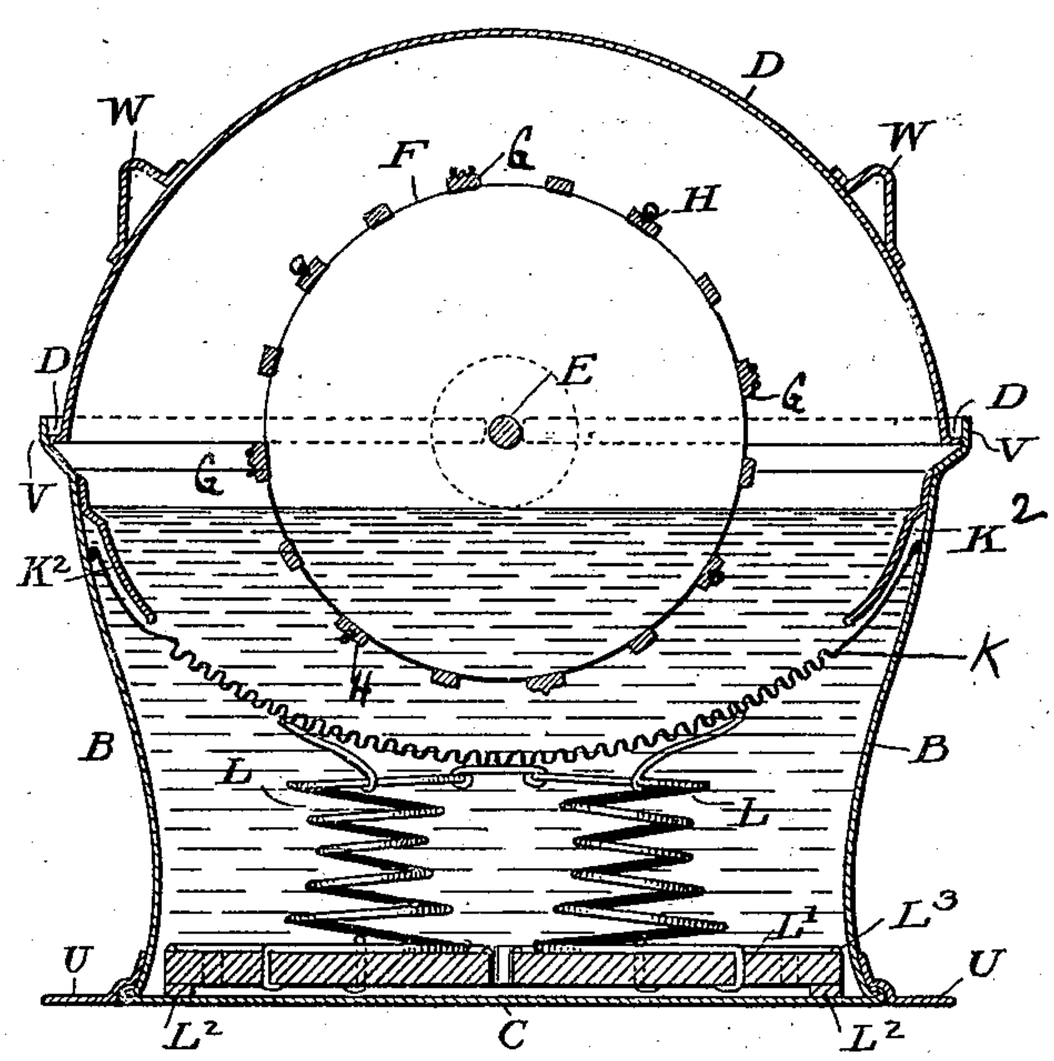


Fig. 2.

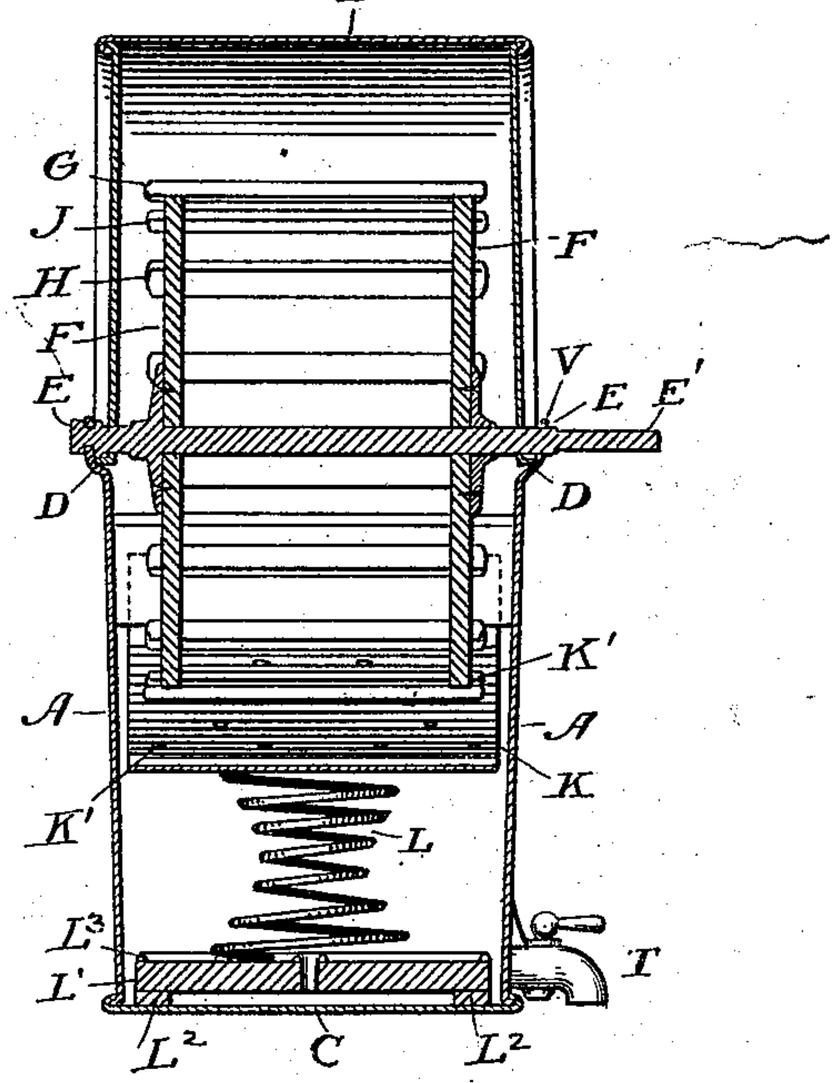
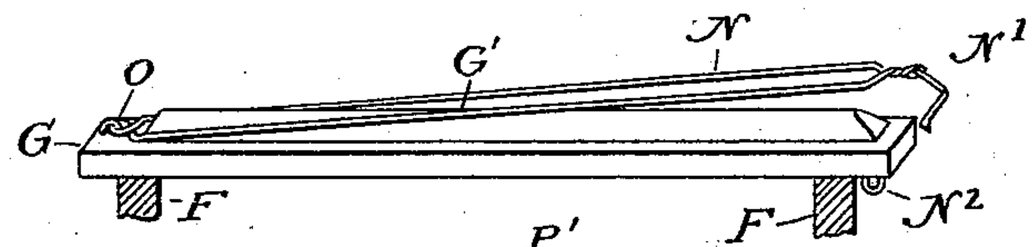


Fig. 3.



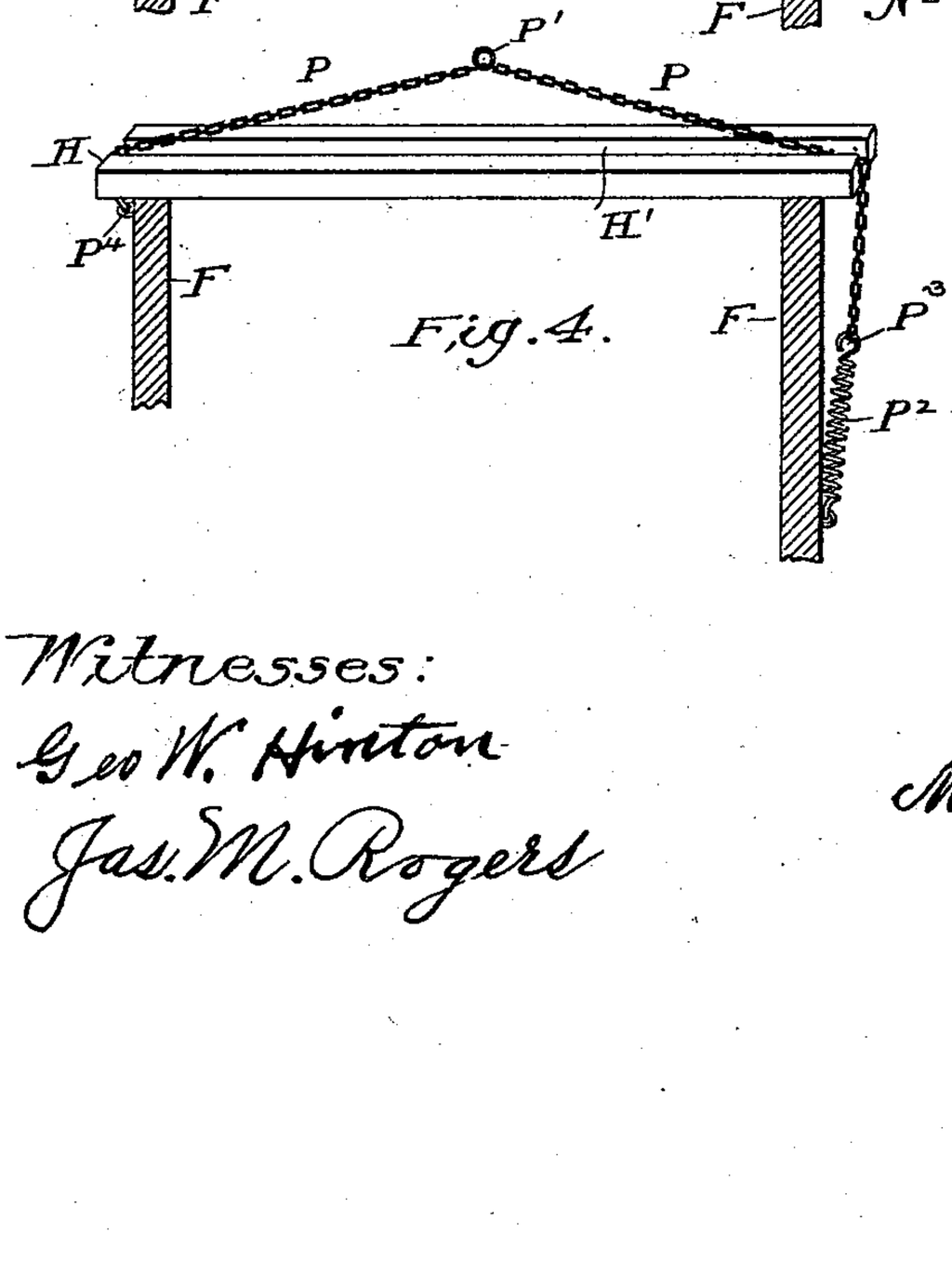


Fig. 4.

Fig. 5.

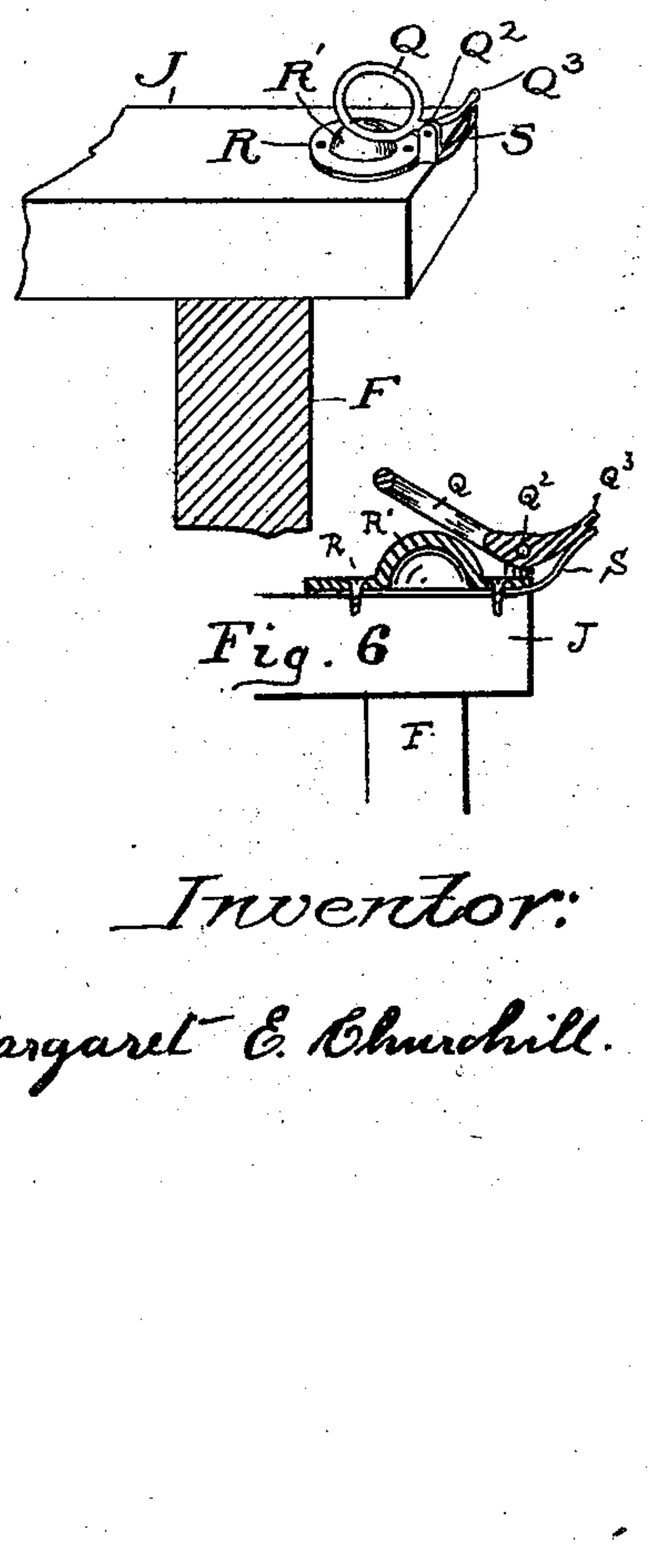


Fig. 6

Witnesses:
Geo W. Hinton
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Inventor:
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UNITED STATES PATENT OFFICE.

MARGARET E. CHURCHILL, OF ST. JOSEPH, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 506,470, dated October 10, 1893.

Application filed October 23, 1891. Serial No. 410,138. (No model.)

To all whom it may concern:

Be it known that I, MARGARET E. CHURCHILL, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and useful Washing-Machine, of which the following is a specification.

My invention relates to improvements in washing machines in which a rotating drum operates in conjunction with an elastic corrugated metal sheet; and the objects of my improvements are, first, to provide a washing machine which may be operated by a continuous rotary motion thereby rendering it easy of operation when driven either by hand or by power; second, to so construct said machine that the articles may be easily, quickly and securely attached to the rotating drum, hereinafter described, in such a manner that they may be evenly distributed on the annular surface of said drum, by means of clamps which will not tear or otherwise injure the finest fabric; third, to so construct said washing machine that the surface of a corrugated metal sheet shall at all times be pressed upward against the articles being washed, whether large or small; fourth, to provide a receptacle for heavy particles of dirt, &c., which may be liberated from said articles in the operation of the machine. I attain these objects by the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a longitudinal section cut through the center. Fig. 2 is a transverse section cut through the center. Figs. 3, 4 and 5 cover modified forms of clamps. Fig. 6 is a sectional view of the clamp shown at Fig. 5.

Similar letters refer to similar parts throughout the several views.

The sides A, ends B and bottom C, preferably of sheet metal, form the body of my invention.

D is the lid provided with handles W. Lid D resting on the described body of machine and encircled by projection V effectually prevents the splashing of suds from said machine when in operation.

In the sides A rotates the shaft E carrying the drum composed of the two disks F and slats G, H and J, said slats being suitably shaped for the reception of clamps or fastenings, see Figs. 3, 4 and 5, by which the articles to be washed are attached to slats G, H and J. The rotation of the above described drum brings said articles in frictional contact with the corrugated metal sheet K, which in the presence of suds removes the dirt from said articles, metal sheet K being pressed upward against the articles being washed by means of springs L. The ends of metal sheet K are arranged to travel upward and downward between projections K^2 and end of body B as the pressure of springs L varies in pressing sheet K against said articles of varying thicknesses which are attached to the above described drum. The lower ends of springs L are securely attached to a board L′; said board being held above bottom C by its projections L^2. The raised edges L^3 on board L^2 prevent heavy particles of dirt, &c., which gravitate downward through perforations K′ in metal sheet K onto board L^2 from being removed from said board onto bottom C by the agitation of the suds thereby insuring comparatively clear suds against bottom C thus preventing burning of bottom C.

U U are projections on bottom C by which the machine may be clamped to a stove, table or bench. Shaft E by which the machine is driven may be rotated by a crank, pulley or any suitable device for transmission of power, attached to shaft E at E′.

T is a faucet through which the suds may be drawn from body of machine.

The articles to be washed are easily, quickly and securely attached to the slats G, H and J by the three following methods: First, see Fig. 3, by moving upward the wire loop N on its pivotal fastening O, by which one end of said wire is attached to slat G, and then placing the articles to be washed between wire loop N and the raised surface G′ on slat G and moving the loose end of wire N downward and inserting hook N′ into staple N^2 which is attached to slat G; second, see Fig. 4, the chain P is raised from slat H by means of ring P′. The cleaner parts of articles to be washed are inserted between chain P and slat H; on liberating ring P′ chain P will be drawn tightly against said articles by the elasticity of spring P^2 pressing the cleaner parts of said articles into groove H′ in slat H. Chain P may be ad-

justed to the desired length or unfastened by unhooking hook P^3 on spring P^2. The opposite end of chain P is secured to slat H by staple P^4; third, see Fig. 5, the articles to be washed are attached to slat J by moving upward, the ring Q on its pivotal fastening Q^2 by which said ring is attached to the metal seat R, and by placing the cleaner parts of articles to be washed between the raised surface R′ on seat R and ring Q, on liberating ring Q, spring S pressing against thumb piece Q^3 causes ring Q to move downward pressing said articles and holding them firmly in place between ring Q and seat R. Spring S and seat R are attached to slat J by screws or other suitable fastenings.

The main feature of my invention consists in the peculiar construction of the false-bottom and manner in which it is supported so as to form a bed which is adapted to adjust itself to the material operated upon.

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination in a washing-machine, of a longitudinally-slatted-roller, with spring-actuated clamps adapted to operate with the slats, each clamp consisting of a chain P, ring P′, and spring P^2, the chain and spring secured at opposite ends of the roller and having ends adapted to connect with each other, substantially as and for the purpose set forth.

MARGARET E. CHURCHILL.

Witnesses:
GEO. W. HINTON,
JAS. M. ROGERS.