MARGARET P. COLVIN.

Improvement in Washing Machines.

No. 120,717. Patented Nov. 7, 1871.

Fig 1.

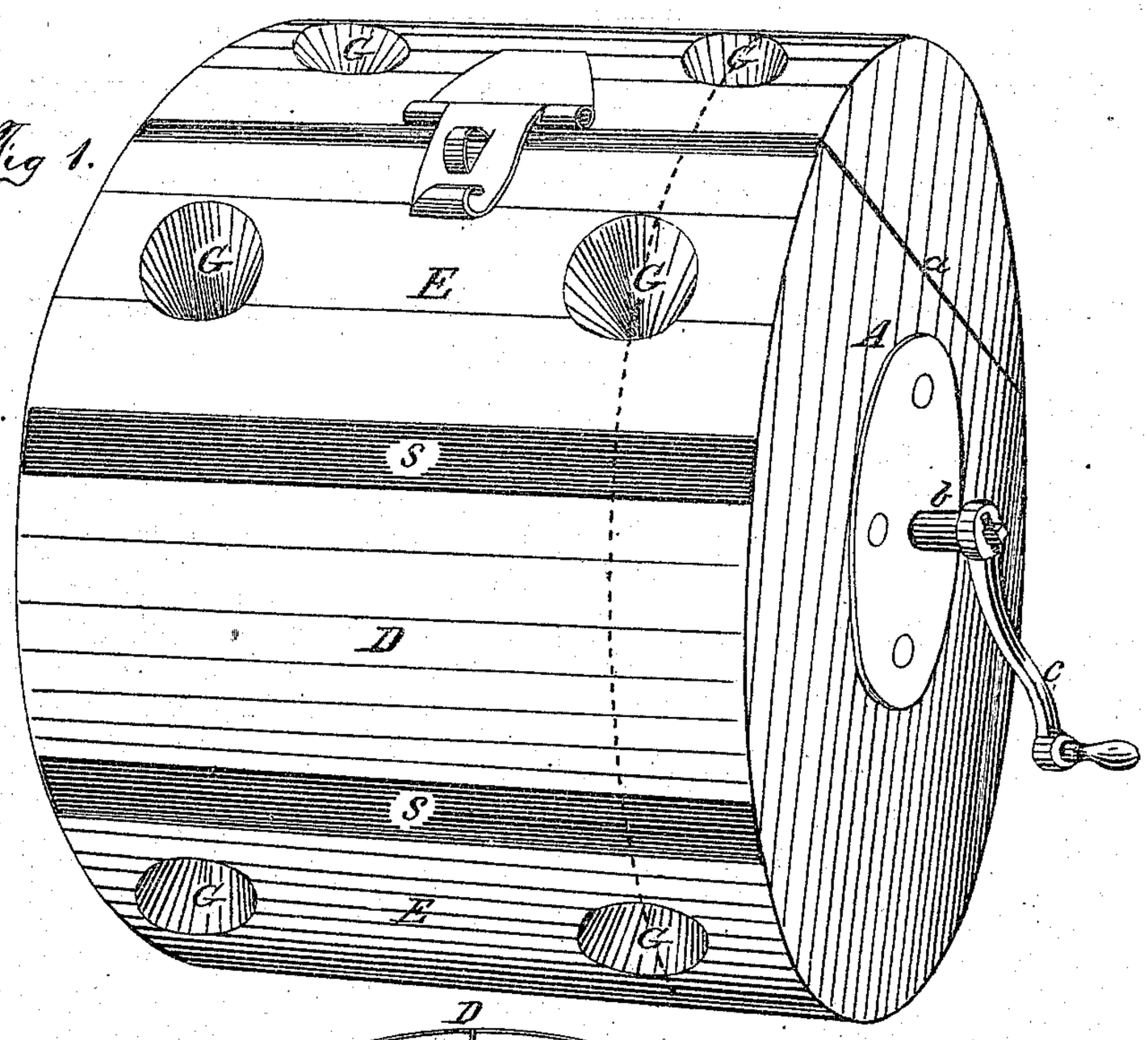

Fig 2.

Scale

0 3" 6" 9" 12"

WITNESSES:

Otto Lee Johnson.

Will A. Coles

INVENTRESS:

Margaret P. Colvin.

by her Attorney in fact

George Johnson.

120,717

UNITED STATES PATENT OFFICE.

MARGARET P. COLVIN, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 120,717, dated November 7, 1871.

To all whom it may concern:

Be it known that I, MARGARET P. COLVIN, of Battle Creek, in the county of Calhoun and State of Michigan, have invented certain Improvements in Washing-Machines, of which the following is a specification:

My invention applies to that class of machines in which the clothes are washed inside of a hollow cylinder hung so as to be revolved inside of a boiler; and it relates to the construction, arrangement, and combination of certain bucket-slats, tubes, and other water-lifting and discharging devices of and with the sections which compose the open circumferential sides of the washing-cylinder; the object of my invention being to increase the rubbing action, produce a more effective impact of the discharged water, and at the same time, by a suitable formation and distribution of the internal angles and projections, enable the cylinder's interior to be safely, readily, and effectively cleaned by hand, as will be hereinafter more fully explained, reference being had to the accompanying drawing, in which—

Figure 1 is a view in perspective of my improved washing-cylinder detached from the boiler. Fig. 2 is a cross-section through the tubular openings in the dotted line.

The cylinder is constructed of any suitable sheet metal, in two hinged sections, for convenience in inserting, examining, and removing the clothes, and is hung on journals so as to be revolved in the interior of a wash-boiler in the same manner as others of this class, which manner is so well known as to need no explanation, and I will therefore confine myself to such description of the cylinder itself as I deem sufficient to explain my invention.

A represents one of the cylinder-heads, provided with journal *b* and hand-crank *c*, the line of hinged parting being shown at *a*. The side circumference of the cylinder is formed by widish strip-sections, marked D and E, arranged alternately around as nearly as the hinging arrangement may render practicable, which sections are connected with the periphery of the heads so as to leave open spaces, as at *s*, between the edges of the said sections, the number used being determined by the diameter of the cylinder. The outer surfaces of the sections D are plain and unbroken, but they are each provided with an interior longitudinal strip in the center, having side flanges formed by another strip placed T-head fashion in cross-section, and indicated at F, the arrangement constituting a right and left interior bucket, as clearly shown at *f f*. The edges of the strip-sections E are turned inward to form two radially-projecting flanges, *i i*, so as to constitute one interior bucket; and two or more open conical tubes, G, are inserted (in central range) in each of said strip-sections, the tapering ends of the tubes projecting some little distance into the interior of the cylinder, thereby forming discharge-orifices, as at *o*, for a more central projection of the suds and water, and to aid in changing the clothes in position.

Sections D and E should be sufficiently wide to allow ample interior space for the fingers and wash-rag, to loosen and clean out all the wash-debris that is certain to lodge in the interior angles of the buckets.

As these cylinders are made of different sizes, and not divided in a central line, it may not be always practicable to arrange the strips D and E alternately all the way around; and when they cannot, then two of the strips D or E may lie adjacent to the parting line, and for lack of the internal space along the line of hinging, apertures, as at *h*, may be made in the contiguous section-strip to admit the suds-water, as shown in the drawing.

When the cylinder is slowly revolved, first in one direction, then in the other, the buckets and tubes elevate and discharge the boiling suds-water on the rolling clothes with great impact-force, besides effecting a gentle squeezing and rubbing action, while the tubes aid very much in disentangling and changing the clothes' positions.

I claim as my invention—

In a washing-cylinder the sides of which are built in strip-sections, as at D and E, the combination of the central T-strip F with each plain section D to form two internal buckets, *f f*, and two or more conical discharge-tubes, G G, with each section E flanged at *i i* to form one bucket, said sections being arranged alternately around and constructed and operated substantially as and for the purpose specified.

MARGARET P. COLVIN.

Witnesses:

ASHLEY COLVIN,

B. J. GLASGOW.

(91)