

W^M JAMES DODGE'S IMPROVED WASHING MACHINE

110555

FIG. 1

PATENTED DEC 27 1870

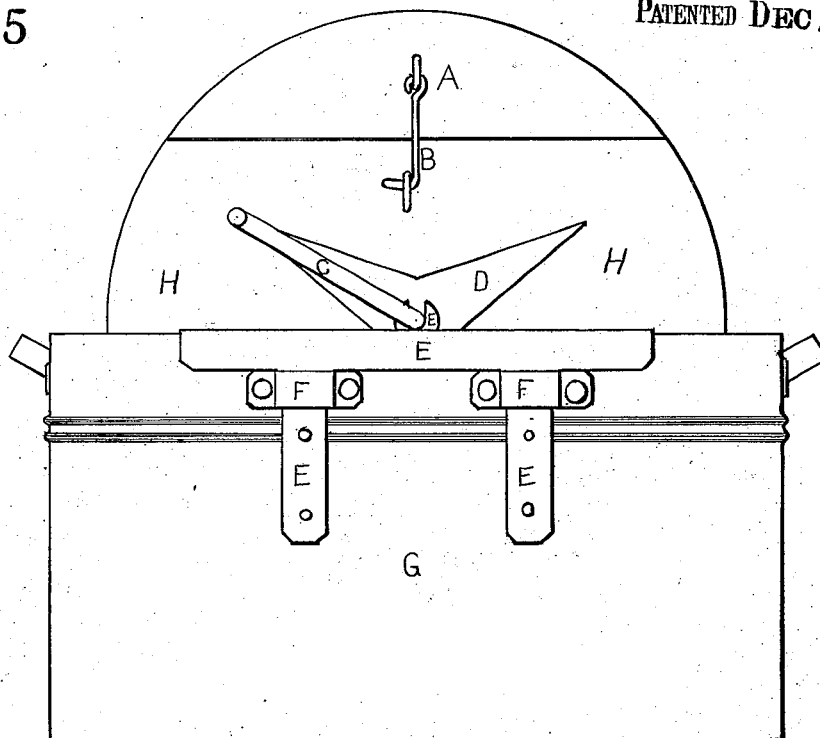
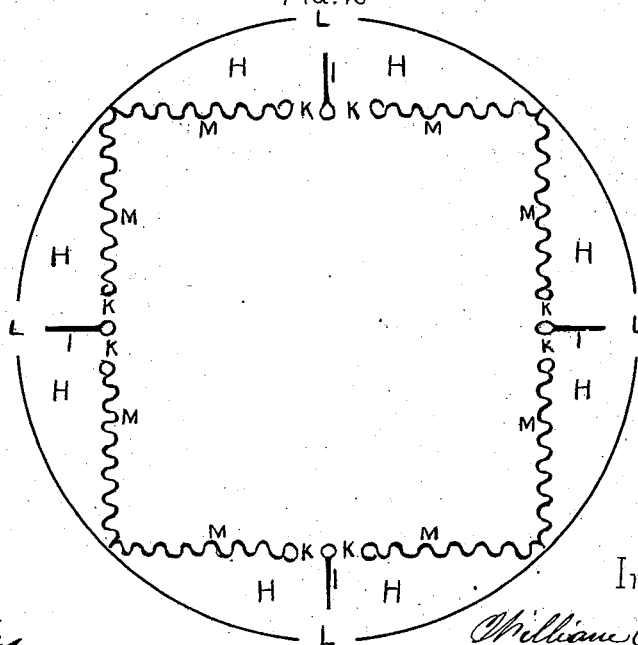


FIG. 2



Witnesses

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WILLIAM JAMES DODGE, OF SYRACUSE, NEW YORK.

Letters Patent No. 110,555, dated December 27, 1870.

IMPROVEMENT IN WASHING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM JAMES DODGE, of the city of Syracuse, in the county of Onondaga and State of New York, have invented certain Improvements in Washing Machines, of which the following is a specification.

Nature and Objects of the Invention.

The first part of my invention relates to the construction of a metallic drum, suspended upon gudgeons, and rotated with a crank upon bearings attached to an ordinary boiler, for the purpose of washing clothes.

The novelty of this drum consists in the construction of the buckets, for elevating and discharging the water or suds.

I make these buckets, the outside to correspond with the outside periphery of the drum, having suitable openings for the admission of the water into the same, and the inside of the buckets so shaped as to form a chamber, having four square sides, inclosed by the end plates of the drum, for the clothes to be washed. The drum is opened by a trap, which is attached to the end of the drum by hinges, and fastened by a hook or spring catch at the other end when closed.

This trap is opened and closed at will when putting in and taking out the clothes, or operating the machine.

The inside of the buckets are made with suitable openings to discharge the water from the same at the top, thus carrying the water to the top of the drum before discharging the same into the clothes-chamber, getting the greatest percussive effect of the water.

The water is prevented passing the openings when discharged by a suitable partition.

I corrugate the insides of the buckets, and finish all the ends or edges that can come in contact with the clothes-round, thus making the entire clothes-chamber perfectly smooth, with no projections to catch and tear, or strain the clothes, and having a large rubbing-surface.

The clothes are lifted and turned and agitated in the chamber by the angles, as they come round when the drum is revolved.

The second part of my invention relates to the detachable bearings, in which the gudgeons of the drum run, with the boiler-supporter attached thereto and forming a part of the same.

These bearings I make of cast malleable iron; they consist of a suitable bearing for the gudgeons, open on top, attached to a thin plate, extending an equal distance on each side of the bearing, as far as desired.

This plate is of such width that it can be bent down on each side of the edge of the boiler, forming a gripe, and having a long bearing surface on the same.

Connected with one edge of this plate, and near the ends, are attached two braces or tongues, which lie against the outside of the boiler, and extend downward; these are passed through two loops riveted to the sides of the boiler near the top, preventing any lateral motion; these loops can be riveted upon any boiler, when the bearings can be attached for using the machine; when not washing, the bearings are withdrawn, and the boiler can be used for any other purpose.

As most families are provided with boilers, by this arrangement the expense of the same is saved, and the cost of the machine brought within the reach of the poor.

Description of Accompanying Drawing.

Figure 1 is a side elevation my machine ready for work.

Figure 2 is a vertical transverse section of the drum.

General Description.

In fig. 1—

A is the trap.

B is the hook, fastening the same.

C, the crank.

D, attachment of gudgeon to drum.

E E E E, detachable bearings.

F F, loops.

G, boiler.

H H, the drum.

In fig. 2—

L L L L are the openings for ingress of water to buckets.

K K K K, openings for discharge of water to clothes-chamber.

I I I I, partitions.

H H H H are the buckets.

M M M M, corrugated sides of buckets, forming sides of clothes-chamber.

In operating my machine, after the bearings have been placed upon the boiler and drum suspended, and a proper quantity of water put in the boiler, and soap added, the same is placed upon the stove to boil; the trap being opened, the clothes-chamber is filled two-thirds full of clothes; the trap is then closed and fastened; as the water becomes hot the drum is rotated first in one direction and then in the other. The buckets carry up and discharge the suds upon the

clothes while the same are being rolled and rubbed, by their own weight, on the surface of the chamber. A few moments washes them clean without injury.

For washing calicoes or flannels the machine is removed from the stove, and the suds properly tempered for the purpose.

The advantages of my invention are, its simplicity of construction, durability, cheapness, thoroughness of its work, and saving of labor.

Claims.

I claim as my invention—

1. The buckets, constructed with corrugated plates M M, with inlets and outlets K K and L L, division

plates I I, as shown, in combination with the cylinder A and boiler G, as shown.

2. The square clothes-chamber, formed by the buckets, constructed with corrugated plates M M, in the manner shown, in combination with cylinder A and boiler G, as shown.

3. The detachable bearing, constructed with detachable plates E E, loops F F, in combination with boiler G, as shown and described.

WILLIAM JAMES DODGE.

Witnesses:

WM. J. DODGE.

ANN SARAH BALDWIN.