

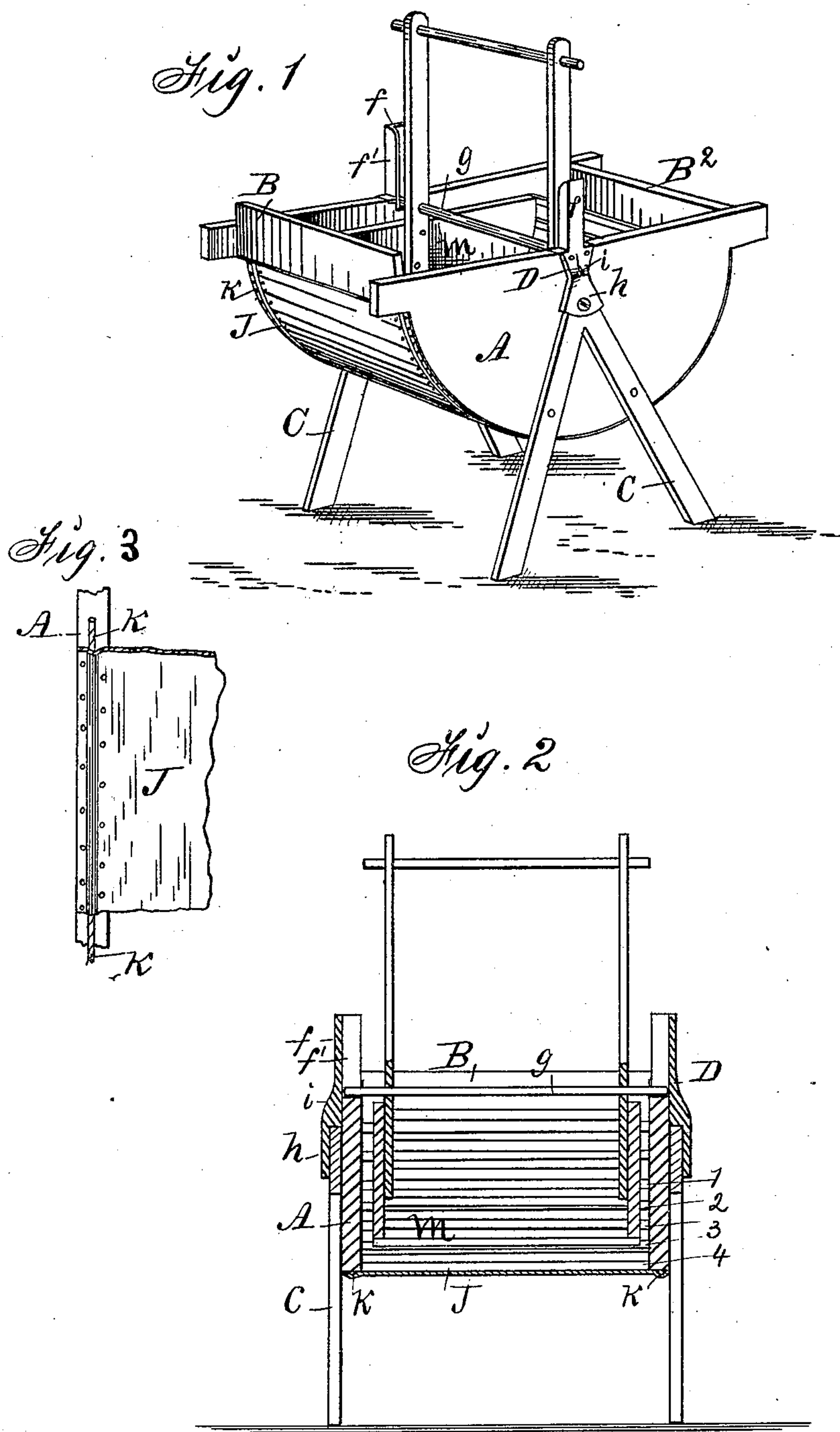
(No Model.)

G. W. CAMPBELL.

WASHING MACHINE.

No. 245,444.

Patented Aug. 9, 1881.



Witnesses:
Frank V. Heers.
R. G. Orwig.

Inventor:
George W. Campbell,
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UNITED STATES PATENT OFFICE.

GEORGE W. CAMPBELL, OF VINTON, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 245,444, dated August 9, 1881.

Application filed January 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CAMPBELL, of Vinton, in the county of Benton and State of Iowa, have invented an Improved Washing-Machine, of which the following is a specification.

My invention relates to that class of machines represented by Patent No. 118,618, issued August 29, 1871, in which sheet-metal bottoms are fixed to the edges of a wooden box to produce a water-tight tub.

It consists in forming continuous grooves in the edges of the sheet metal to stiffen the same and to inclose a flexible cord and adhesive cement for the purpose of producing more durable water-tight joints and an improved machine, as hereinafter fully set forth.

Figure 1 of my accompanying drawings is a perspective view of my improved machine. Fig. 2 is a transverse section. Fig. 3 is a detail view, showing a section of the tub. Jointly considered these figures clearly illustrate the construction and operation of my complete invention.

A A are the semicircular sides of the tub.

B and B² are wooden cross-pieces connecting the ends projecting in diverse ways from the top edges of the sides A.

C C are wooden legs fixed to the outside faces of the sides A in inclined positions, so as to meet at the top and to spread at the bottom, as required, to form a wide base and support for the complete machine.

D D are combined metal shaft-bearings and leg-sockets. They are uniform in size and shape, and each has a shaft-bearing extending perpendicularly upward from the top edge and longitudinal center of the side A, and consists of a straight back, *f*, that has uniform flanges *f'* extending inward from its edges to form a vertical groove adapted to receive the end of the metal shaft *g*, upon which the concave rubber is suspended. Each shaft-bearing thus constructed has a triangular-shaped socket, *h*, formed integral with its lower end, adapted to receive and cover the pointed and united ends of the converging legs that are fixed to the sides of the tub. In the offsets of the complete casting formed by the top of the socket *h* are ribs *i*, that serve to strengthen and support the shaft-bearings that extend upward

from the top edges of the sides of the tub. These combined shaft-bearings and leg-sockets are perforated at proper points to admit screws, by means of which they are securely fastened in their places on the sides of the tub. The above-described features, however, are old; but I have illustrated my invention as applied to a machine of the construction set forth.

J represents a sheet-metal bottom, preferably zinc, nailed at its edges to the bottom edges of the wooden sides and end cross-pieces of the tub.

K (shown clearly in Fig. 3) is a flexible cord that is covered with paint or other suitable adhesive cement, and secured on the edges of the wood and under the sheet-metal bottom by means of rows of nails driven through the sheet metal and into the wood on the opposite sides of the cord K, to clamp it fast and to bend a groove in the sheet metal to inclose the cement and cord, and thereby produce continuous water-tight joints along the semicircular edges of the tub. By thus forming a groove in the sheet metal in the act of nailing it fast, or by means of a tinner's grooving-machine before nailing it fast, the edge of the sheet metal is stiffened, and thereby made less liable to warp and spring loose from the wood and cause the tub to leak.

The end cross-piece, B², is set outward relative to the concave bottom of the tub for the purpose of adapting it to receive and support a wringer in such a position that the wringer will not interfere with the operation of the convex rubber *m*, that is suspended in and detachably connected with the tub by means of the shaft-bearing castings D and the metal rod *g*.

I am aware that flexible and elastic packing material has been interposed between the metal bottom and wooden side of a tub; but when the edge of the sheet metal is flat the elastic packing under it exerts a constant outward pressure and loosens the nails, and consequently impairs the joints. By my manner of forming a continuous groove in the edge of the sheet metal to inclose a round flexible cord and adhesive cement I overcome the difficulty of forming and maintaining water-tight joints between the sheet-metal bottom and wooden sides.

I therefore do not broadly claim the use of flexible packing for the purposes contemplated; but

What I claim, and desire to secure by Letters Patent, is—

In a washing-machine, a sheet-metal bottom having continuous grooves in its edges, a flexible and cemented cord, and the wooden side

pieces of a tub, combined in the manner set forth to produce improved water-tight joints, substantially as shown and described.

GEORGE W. CAMPBELL.

Witnesses:

H. H. WALLACE,
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