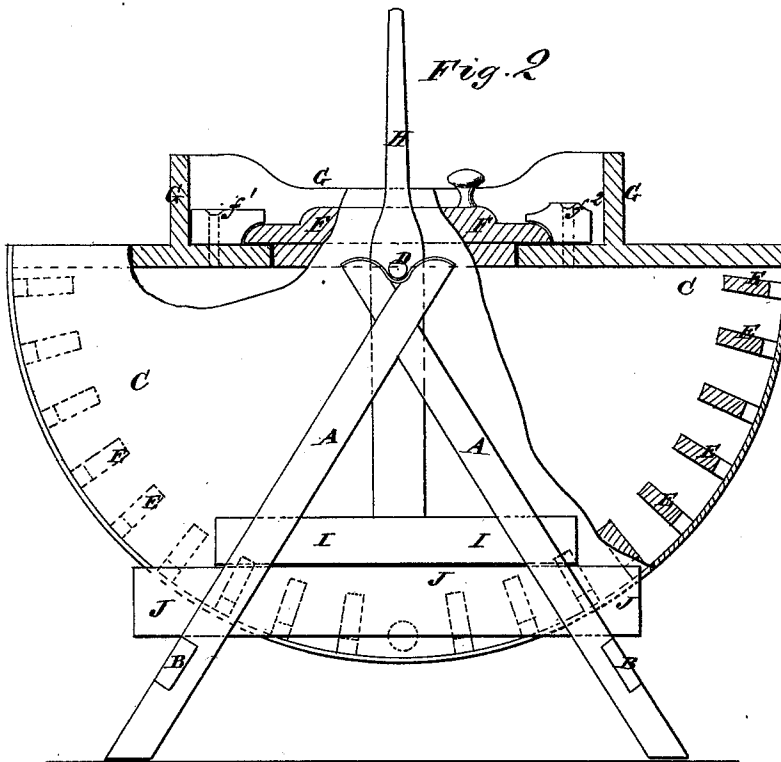
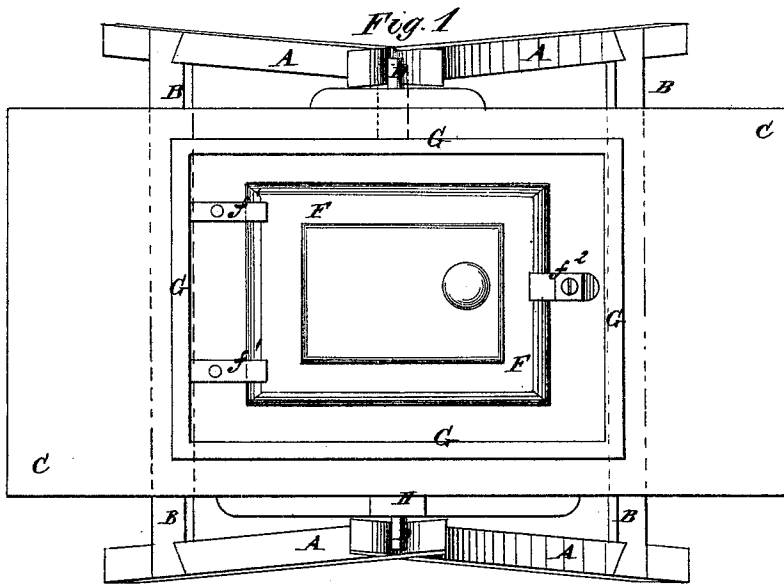


A. D. & A. N. FERRIS.
 WASHING-MACHINES.

No. 180,860.

Patented Aug. 8, 1876.



WITNESSES:

A. W. Almqvist
John Goethals

INVENTOR:

A. D. Ferris
 BY *A. N. Ferris*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALLEN D. FERRIS AND ALBERT N. FERRIS, OF BLAKELEY, MINNESOTA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 180,860, dated August 8, 1876; application filed June 20, 1876.

To all whom it may concern:

Be it known that we, ALLEN D. FERRIS and ALBERT N. FERRIS, of Blakeley, in the county of Scott and State of Minnesota, have invented a new and useful Improvement in Washing-Machine, of which the following is a specification:

Figure 1 is a top view of our improved machine. Fig. 2 is a side view of the same, parts being broken away to show the construction.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for washing clothes, which shall be simple in construction, strong and durable, convenient in use, easily operated, and effective in operation, washing small and large pieces with equal facility, and without injuring even the finest fabrics.

The invention will first be described in connection with drawing, and then pointed out in the claims.

The frame of the machine consists of the two pairs of inclined posts A, crossing each other, and halved to each other near their upper ends, and connected near their lower ends by two cross-bars, B. C is the suds-box, which is made in the form of a half-cylinder, and to the sides of which, in the centers of the circles of which said sides form parts, are attached gudgeons D, which work in the upper angles of the crossed posts A of the frame. The curved bottom of the suds-box C is made of zinc, and to it is attached a series of parallel cross-bars, E, which form the rubbing-board, and at the same time strengthen the zinc bottom. The parts of the cross-bars E next the zinc bottom are perforated or re-

cessed, to allow the water to flow back freely to the lower part of the said suds-box as it is oscillated to wash the clothes. The top of the suds-box C is covered, except in the middle part, where is an opening, through which the clothes are inserted and removed, which opening is closed by a lid, F, secured at one side by stationary buttons f^1 , and at the other by a pivoted button, f^2 . The top opening is surrounded with a curve, G, which prevents any water that may be spilled from running off upon the floor, and serves as a rest for the attachment of a wringer. To the middle part of one side of the suds-box C is attached an upright lever, H, to serve as a handle for operating the machine. To the lower part of the side of the suds-box C is attached a cleat, I, so that a strip or bar, J, may be inserted beneath it to rest upon the cross-bars B of the frame A B, and thus hold the said suds-box C stationary while the wringer is being used.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. An improved washing-machine, consisting essentially of frame A B, suds-box C D E F, curb G, lever H, and cleat I, all constructed and arranged as and for the purpose specified.

2. The combination of the stationary cleat I and the detachable stop-bar J with the pivoted suds-box C, and with the frame A B, substantially as herein shown and described.

ALLEN DARIUS FERRIS.

ALBERT NEWELL FERRIS.

Witnesses:

WILLIAM HENRY,
L. M. BLANCHARD.