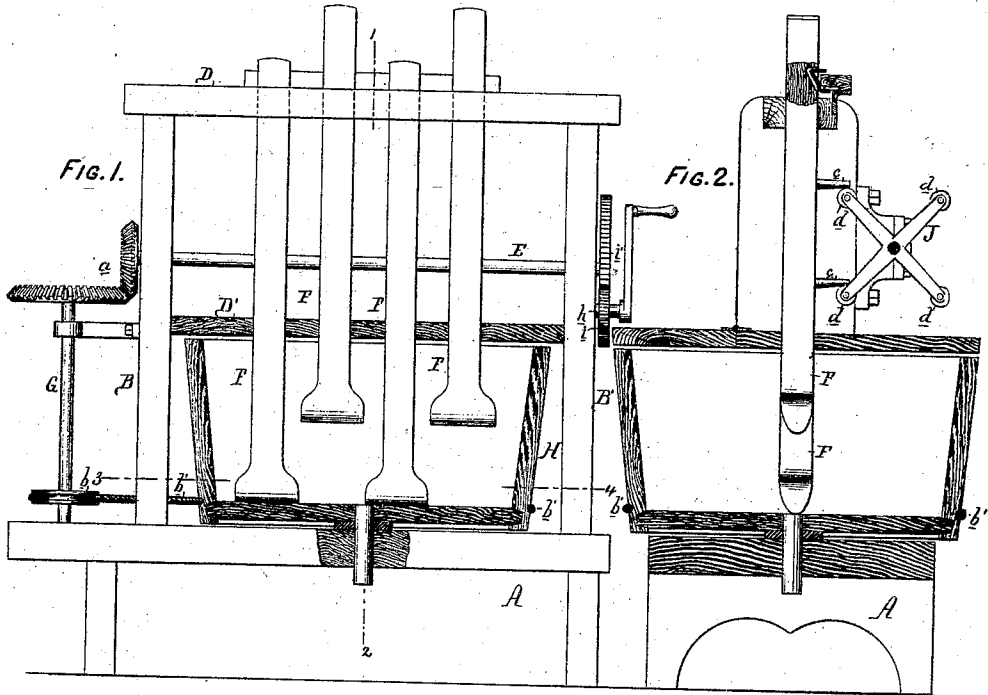


J. B. Wilson,

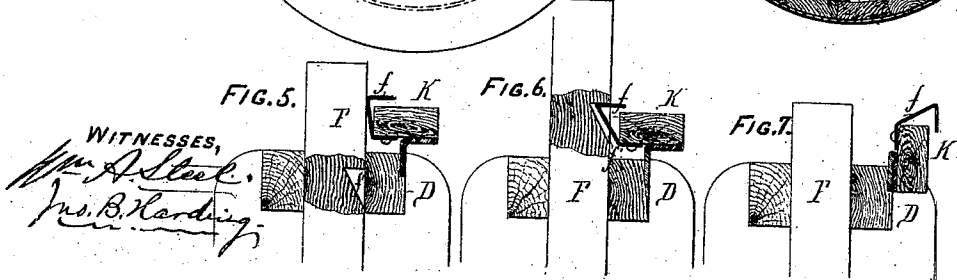
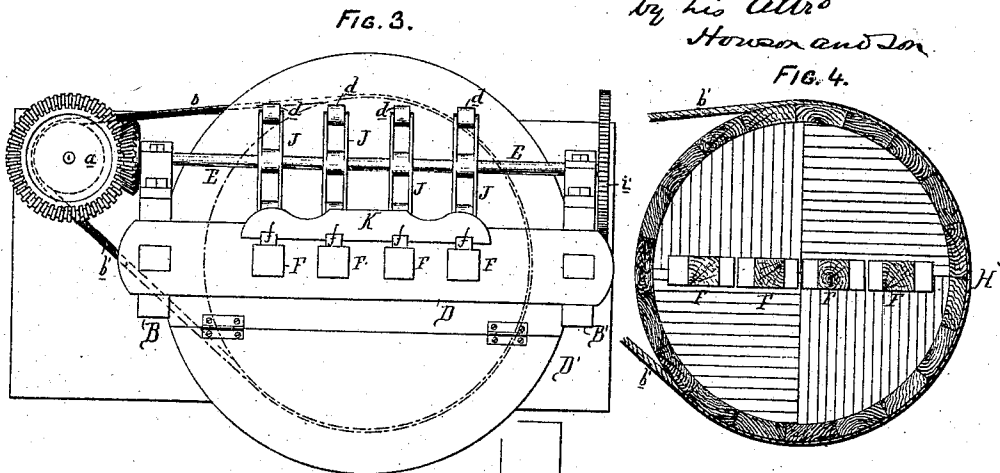
Washing Machine.

No. 106301.

Patented Aug. 9. 1870.



*Joseph B. Wilson
by his Attors
Horton and Son*



WITNESSES,
Wm. A. Steel,
Jno. B. Harding,

United States Patent Office.

JOSEPH BEARFORD WILSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF, PHILIP W. LAWRENCE, AND WALTER RECKLESS.

Letters Patent No. 106,301, dated August 9, 1870.

IMPROVEMENT IN WASHING-MACHINE.

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

I, JOSEPH BEARFORD WILSON, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain Improvements in Washing-Machines, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of certain improvements, fully described hereafter, in the washing-machine for which Letters Patent were granted to me on the 19th day of October, A. D. 1869.

Description of the Accompanying Drawing.

Figure 1 is a vertical sectional view of my improved washing-machine;

Figure 2, a vertical section on the line 1 2, fig. 1;

Figure 3, a plan view;

Figure 4, a sectional plan on the line 1 2, fig. 1; and

Figures 5, 6, and 7, detached sectional views of a portion of the machine drawn to an enlarged scale.

General Description.

The general construction and arrangement of the machine are similar to that for which Letters Patent were granted to me on the 19th day of October, A. D. 1869—

A representing the frame or base of the machine; B B', the standards for supporting the cross-piece D and board D';

E, the driving-shaft;

a, the bevel-gear by which motion is communicated from the driving-shaft to the vertical shaft G, the latter having a pulley, b, by which, through the medium of a belt or cord, b', motion is imparted to the horizontal revolving tub H; and

F F F F represent the beaters, operated by arms, J, of the driving-shaft, which strike projections or pins, c, of the beaters, as best observed in fig. 2.

My present improvements consist—

Firstly, in so constructing the operating-arms J that undue friction may be avoided, and the beaters be caused to rise and fall more rapidly;

Secondly, in guarding the under side, or that part of each pin c which is struck by the operating-arm, with rubber or equivalent material;

Thirdly, in fluting, corrugating, or roughening the bottom of the revolving tub;

Fourthly, of a device for catching and holding up the beaters when it is necessary to obtain access to the interior of the tub; and

Fifthly, of an improvement in the driving-gear.

The first of my improvements consists in extending the operating-arms J across the shaft, so that they may strike the projections or pins of the beater with both of their opposite ends, thus operating the beater twice for every revolution of the driving-shaft, instead of once only, as in my aforesaid patent of October 19, 1869.

The opposite ends of the operating-arms are also provided with small wooden or other rollers, d, which

strike the pins c of the beaters, and thus considerably diminish the friction.

The under side of the projections or pins c are faced with rubber, cloth, felt, or other suitable material, for the purpose of preventing the noise consequent upon the rapid striking of the said pins by the operating arms or their rollers d.

The object of corrugating or fluting the bottom of the revolving tub is to cause the clothes or other articles to be submitted to a rubbing action between the said corrugations and the beaters at the same time that they are being operated upon by the latter.

To increase this rubbing, the flutings or corrugations may be arranged in sections, as shown in fig. 4, so that they may be caused to pass transversely beneath the beaters.

The device for catching and holding up the beaters when it is desired to gain access to the interior of the tub for the purpose of removing the clothes, &c., is illustrated in figs. 5, 6, and 7, and consists of a bar, K, hinged to the cross-bar D at a point adjacent to the beaters, and having, at a point opposite to each of the latter, a spring catch, f, adapted to notches, f', of the said beaters.

When it is desired to hold up the beaters, the bar K is turned to the position shown in fig. 5, so that, when the said beaters are raised, they may be caught and held by the spring catches which enter the notches f', as seen in fig. 6; and when the beaters are to be released, it will be only necessary to turn the bar K to the position shown in fig. 7.

The improvement in the driving mechanism consists, principally, in the employment of an additional short spindle, h, provided with a crank, and having a pinion, i, gearing into a larger cog-wheel, z', of the driving-shaft E.

In my former patent, the crank was connected directly to the end of the driving-shaft; but this rendered the operating of the mechanism too laborious.

Claims.

1. The combination of the rotating tub, shaft E, its arms, and friction-rollers d, beaters F, and their pins c, covered, or partly covered, with felt, or its equivalent, all as set forth.

2. The combination, with the said beaters and operating devices, substantially as described, of the rotating tub H, having its bottom corrugated in four sections, as set forth.

3. The combination, substantially as herein set forth, of the bar K and its spring catches f with the recessed or notched beaters.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH BEARFORD WILSON.

Witnesses:

WM. A. STEEL,
LOUIS BOSWELL.