(No Model.)

J. W. DALRYMPLE.

PHOTOGRAPHIC WASHING APPARATUS.

No. 406,269. Patented July 2, 1889.

Fig. 1.

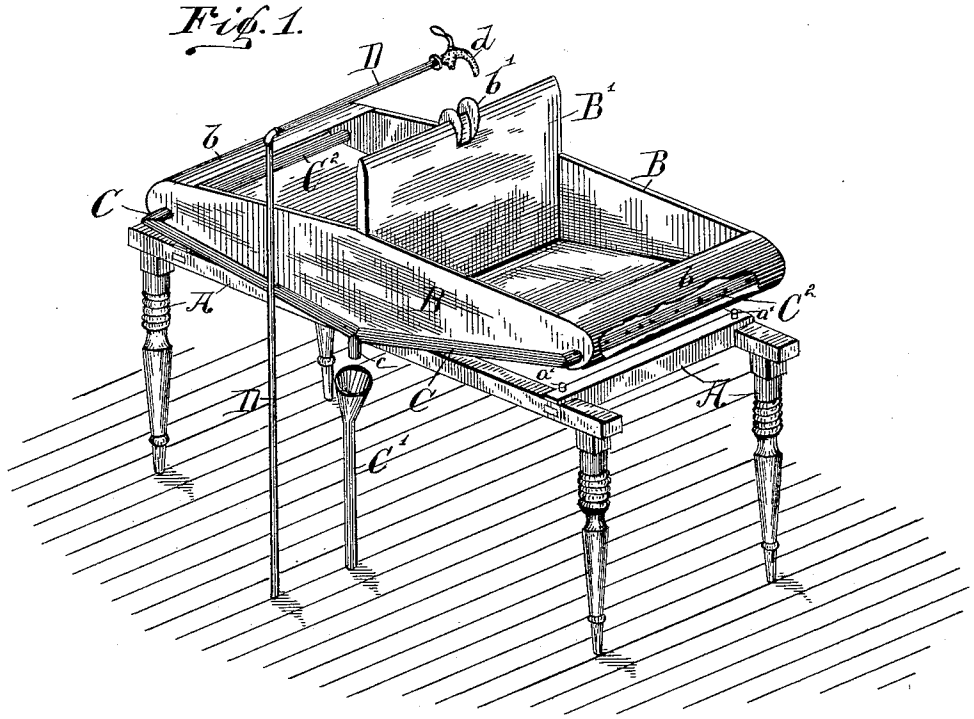


Fig. 2.

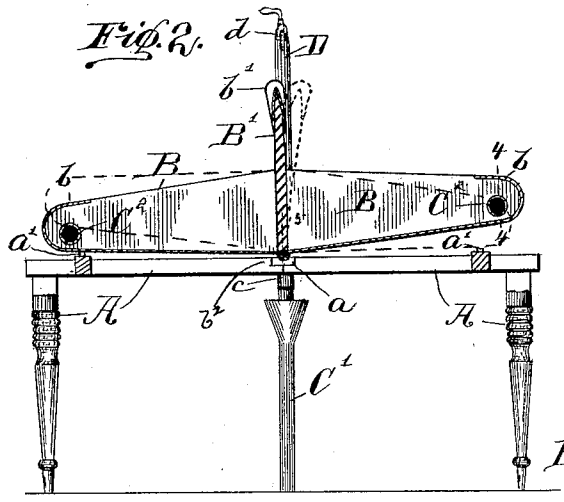


Fig. 3.

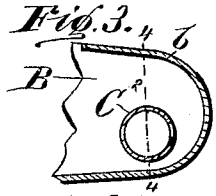
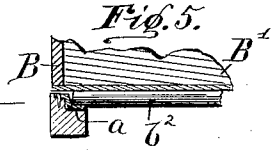


Fig. 4.



Fig. 5.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JAMES W. DALRYMPLE, OF SOLSBERRY, INDIANA.

PHOTOGRAPHIC WASHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 406,269, dated July 2, 1889.

Application filed September 3, 1888. Serial No. 284,404. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. DALRYMPLE, a citizen of the United States, residing at Solsberry, in the county of Greene and State of Indiana, have invented certain new and useful Improvements in Photographic Washing Apparatus, of which the following is a specification.

The object of my said invention is to produce an automatic washing-machine which shall be operated by the discharge of the washing-water into it.

It principally consists in pivoting a trough or pan centrally, extending a central partition directly above the pivot-point, and arranging a water-pipe above said partition and vertically above said pivot-point.

It further consists in the arrangement of waste-pipes and other details, as will be hereinafter more particularly described, and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a washer embodying my invention, a fragment of the nearest end being broken out to show the pipe running across the end and the orifices therein; Fig. 2, a central longitudinal vertical sectional view of the same; Fig. 3, a detail sectional view, on an enlarged scale, similar to a portion of Fig. 2, on the dotted line 3 3 in Fig. 4; Fig. 4, a transverse sectional view through the end of the washer, also on an enlarged scale, on the dotted line 4 4 in Figs. 2 and 3; and Fig. 5, a detail sectional view through the bearing on which the rocking portion rests on the dotted line 5 5 in Fig. 2.

In said drawings the portions marked A represent the frame-work of my improved washer; B, the washer proper, which is mounted and rocks on the frame A; C, the pipes by which the liquid is allowed to escape from the washer, and D the water-pipe which discharges into the washer.

The frame A is, or may be, of any form which will suitably support the washer. At or near its center it is provided with bearings *a*, in which the bearing portion of the washer B rests, and upon which said washer oscillates. It also preferably has buffers *a'*, usually of rubber, against which said washer strikes as it moves from one position to the other.

The washer B is, generally speaking, a double pan, being divided in the center by a partition B', which extends some distance above the remainder of its upper edge. It preferably tapers in both directions from said central partition to the ends, as shown most plainly in Fig. 2, in order both that the bottom of the end which is elevated shall have a downward inclination toward this central partition, and that its top shall be at least level when at the greatest elevation. The outer ends of this double pan are preferably rounded, as shown, and extend inwardly a short distance in order that the washing-water, when the pan is depressed, shall not slop over the end. The central partition B' should be brought to substantially a sharp edge, as shown, in order that the water from the pipe D shall fall altogether upon the side of said partition, which will convey it into the elevated pan or portion of the washer. Instead of being so brought to an edge (or as a supplement thereto) a saddle-like piece *b'* may be placed upon its upper edge to receive the water, and this may of course be of such form as to guide the water in the direction desired. Projections (or a rib) b^2 rest in the bearings *a* in the frame A and keep this pan to the desired position.

The pipes C extend from the outer ends of the pan on a downward inclination to the center, where they unite, and are provided with a short down-spout *c*, which is directly above the pipe C', extending up from below, which pipe has preferably an enlarged or funnel-like upper end, into which said down-spout is adapted to discharge. Said pipes C also extend through to the inside of the washer B, where they communicate with perforated pipes C^2, which extend across the ends of said pan. These pipes C^2 are revolubly mounted in the pan ends, so that the perforations therein may be brought to a higher or a lower level, and the quantity of water to be permitted to remain in the pan before being discharged thus varied at pleasure. The perforations are preferably upon the outer sides of said pipes C^2, away from the articles which are being washed and from the force of the

water as it is thrown to the ends of the pan by the rocking movement.

The water-pipe D extends to directly above the central partition B′, and has a faucet *d* upon its ends. It is simply an ordinary water-pipe, and, except as to its location, is in no way peculiar to this invention, and will not, therefore, be further described.

The operation of my invention is as follows: Articles to be washed are placed in each or either of the two pans or compartments of the washer and the water is turned on at the faucet *d*. That portion or pan which is elevated will first receive the discharge of water from the water-pipe, the partition B′ being so inclined (see particularly Fig. 2) that the water will all, or nearly all, discharge on that side. When, however, sufficient water has been discharged into this side of the pan, so that it becomes heavier than the depressed side, said depressed side will be elevated and the elevated side depressed, when the discharge will be into the side which at first was depressed, and in the meantime the water in the other side will run off through the pipes C^2 and C, and either discharge into the pipe C′ or into a receptacle provided for that purpose. As the sides are alternately continually receiving the water, and each side thus alternately becoming heavier than the other, this rocking motion is automatically continued as long as the apparatus is kept in operation, and the articles are thus thoroughly washed by the continual addition of fresh water and discharge of the old, aided by the continual agitation resulting from the rocking of the washer.

This washing-machine is adapted to a great variety of uses—such as the washing of wool, paper, and many other articles; but I regard it as particularly adapted to the washing of photographs, negatives &c., for which use it was originally designed.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A rocking washer or pan provided with waste-pipes attached to itself and extending from the ends to near the center, where they are united into a down-spout, substantially as shown and described.

2. The combination, in a washing-machine, with a double pan, of waste-pipes connected to its ends and perforated pipes running across inside said ends and connected with said waste-pipes, substantially as set forth.

3. In a washing-machine, in combination with the waste-pipes thereof, perforated pipes connected to said waste-pipes and revolubly mounted, whereby the perforations may be given different elevations and the depth of water to be maintained in the pans thus regulated, substantially as set forth.

4. In a washing-machine, a double rocking pan having rounded ends which extend a short distance in from the extreme ends of the pan, substantially as described, and for the purposes specified.

5. The combination, in a washing-machine, with a double rocking pan having a central partition extending above its upper edge, of a saddle-like piece *b′* for receiving the discharge of water, and the water-pipe having its discharging end vertically above the pivot-point of said pan and over said saddle-like piece, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 29th day of August, A. D. 1888.

JAMES W. DALRYMPLE. [L. S.]

Witnesses:
C. BRADFORD,
F. W. WOOD.