(No Model.)

C. BRADFORD.

WASHING MACHINE.

No. 277,670. Patented May 15, 1883.

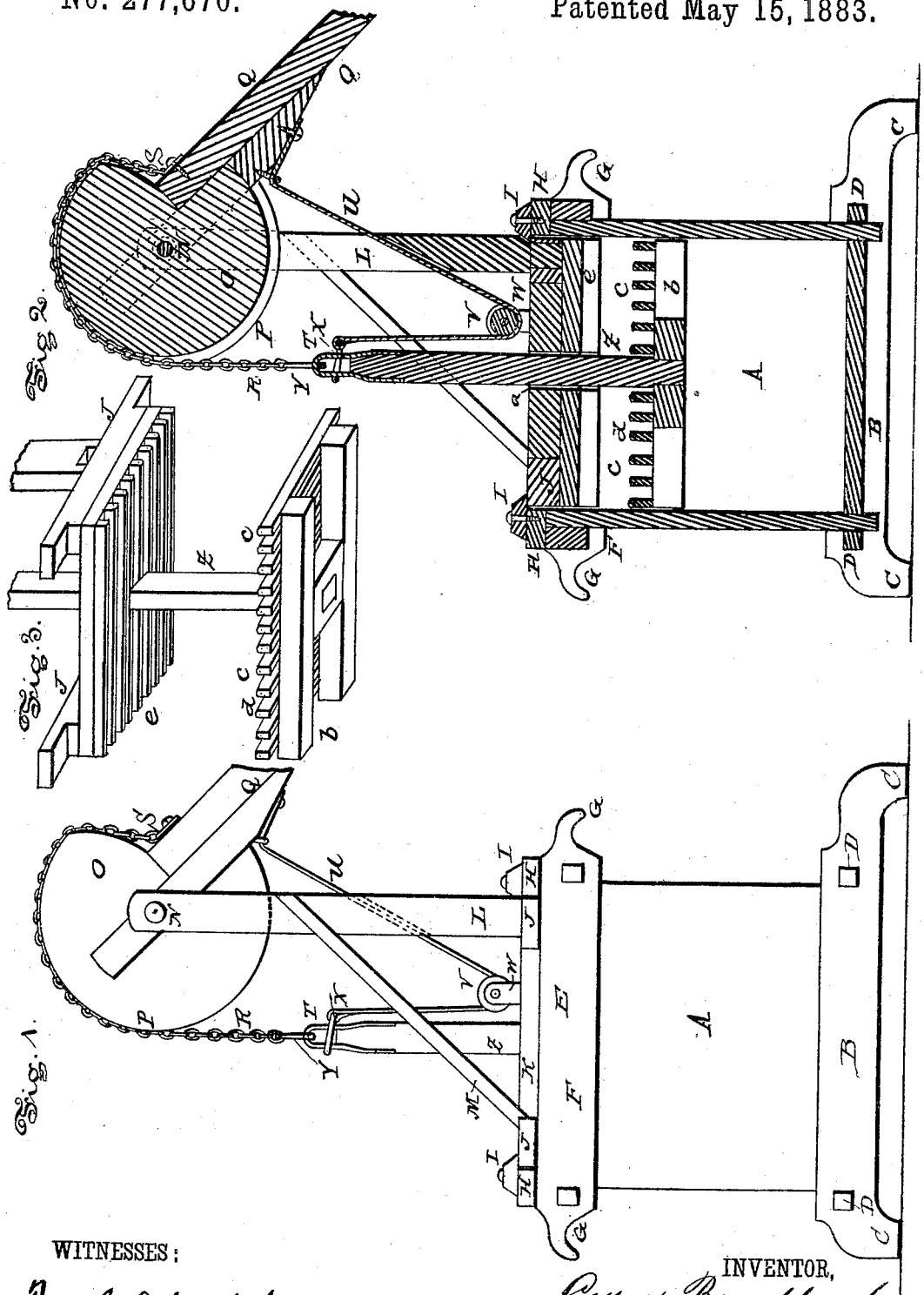


Fig. 2.

Fig. 3.

Fig. 1.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CYRUS BRADFORD, OF ERIE, MICHIGAN.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 277,670, dated May 15, 1883.

Application filed February 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, CYRUS BRADFORD, of Erie, in the county of Monroe and State of Michigan, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved washing-machine. Fig. 2 is a vertical section of the same, and Fig. 3 is a perspective view taken from the under side of the lid and agitator.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to washing-machines; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the suds-box, which is mounted upon a frame consisting of two side pieces, B, having feet C, and two cross-pieces, D, connecting the side pieces and forming a frame supporting and strengthening the lower end of the suds-box. The upper end of the suds-box is provided with a similar frame, E, the side pieces, F, of which are provided at their ends with handles G, by which the machine may be carried.

Two strips, H, are fastened across the ends of the top of the machine, fastened to the upper edges of the side pieces, F, and provided with turn-buttons I, which serve to hold two cross-pieces, J, fastened across the ends of the lid K, the ends of said cross-pieces resting upon the upper edges of the side pieces F.

An upright, L, is fastened upon one of the cross-pieces J, and strengthened by two braces, M, extending from the other cross-piece to the bifurcated top of the upright.

In bearings N in the bifurcated end of the upright is pivoted a disk, O, having its rim P grooved and formed in the shape of three-fourths of a circle, a handle, Q, being fastened to one of the sides of the sector-shaped notch or recess S in the disk.

A chain, R, is fastened at one end upon the inner end of handle Q, and fits in the grooved rim, and is hooked into an eye, T, upon the upper end of the agitator-staff, while a flat strap, U, is fastened at one end to the handle Q, passing along the rim of the disk, over a pulley, V, journaled in bearings W upon the lid of the suds-box, and provided at its free end with a link, X, which is passed over the eye T and held in place by the hook Y upon the end of the chain.

It will be seen that by operating the handle rocking the disk the chain and the strap will alternately raise and lower the agitator-staff Z, which is square and slides in a square perforation, *a*, in the lid.

An H-shaped frame, *b*, is fastened upon the lower end of the dasher-staff, and a series of strips, *c*, having rounded upper edges *d*, are fastened upon the side pieces of this frame, and serve to hold the clothes when the staff is reciprocated.

Upon the under side of the lid is fastened a series of similar strips, *e*, running at right angles to the strips *c*, and as the clothes are lifted up upon the agitator *b c* they are pressed between the crossing strips.

In this manner the clothes to be washed will be drawn out of the water, which drains off between strips *c*, pressed between the agitator and the lid, again immersed, and so forth, by reciprocating the agitator, and it will be seen that there will only be very little friction of the dasher-staff in the perforation *a*, as the chain passing over the circular grooved edge of the disk will exert its draft in an upward direction at all points in the stroke.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a washing-machine, the combination of the agitator-frame *b*, having strips *c* and upright staff Z, lid K, having strips *e*, chain

R, strap U, pulley V, and disk O, having grooved rim P and handle Q, as and for the purpose shown and set forth.

2. As an improvement in washing-machines, the combination and arrangement of suds-box A, lid K, agitator-frame *b c*, staff Z, chain R, strap U, pulley V, upright L, disk O, and handle Q, all constructed to operate as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CYRUS BRADFORD.

Witnesses:
P. H. MATHEWS,
GEO. B. DELONG.