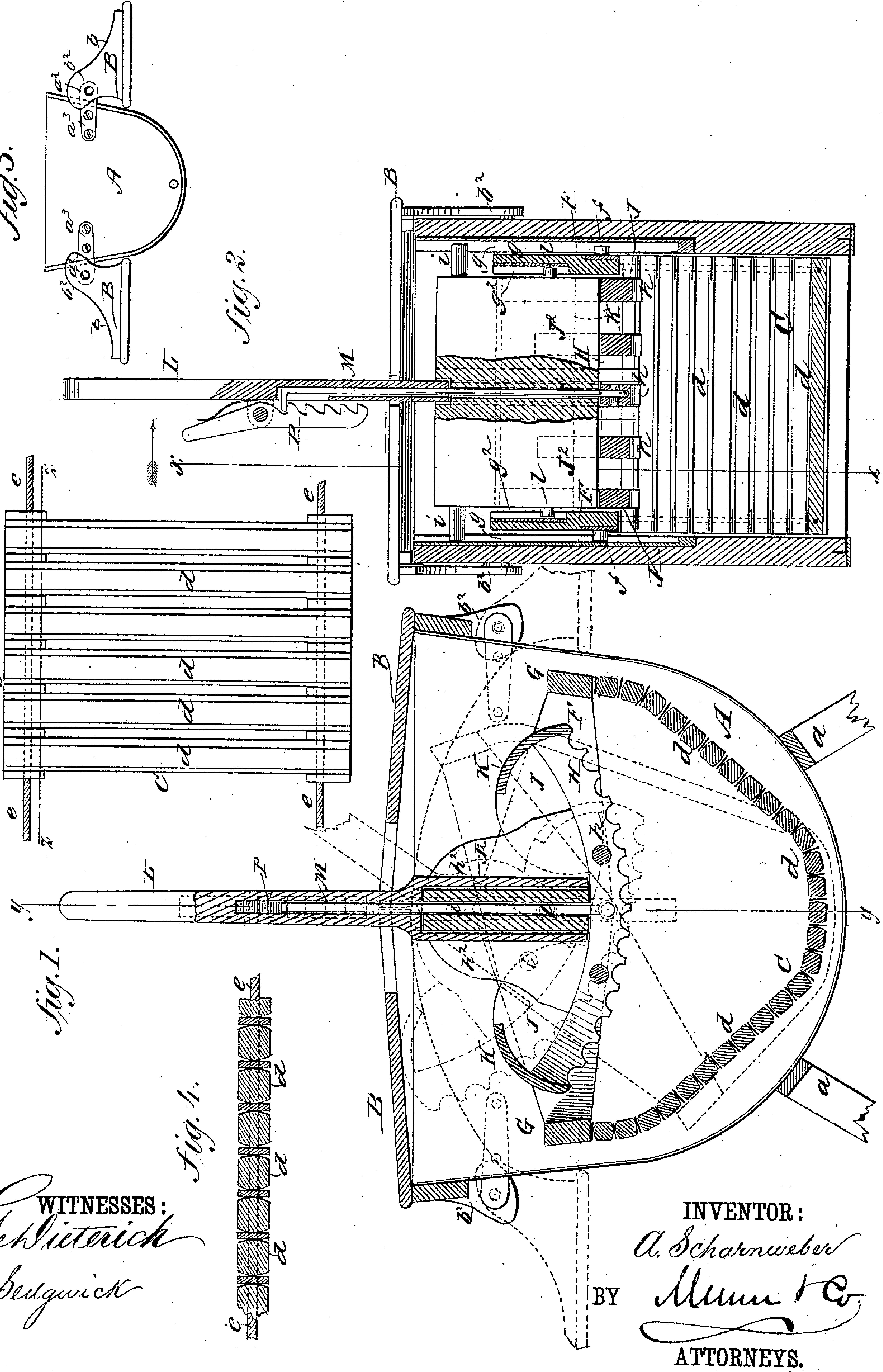
(Model.) 2 Sheets—Sheet 1.

A. SCHARNWEBER.

WASHING MACHINE.

No. 271,369. Patented Jan. 30, 1883.



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INVENTOR:

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BY Munn & Co

ATTORNEYS.

(Model.)

2 Sheets—Sheet 2.

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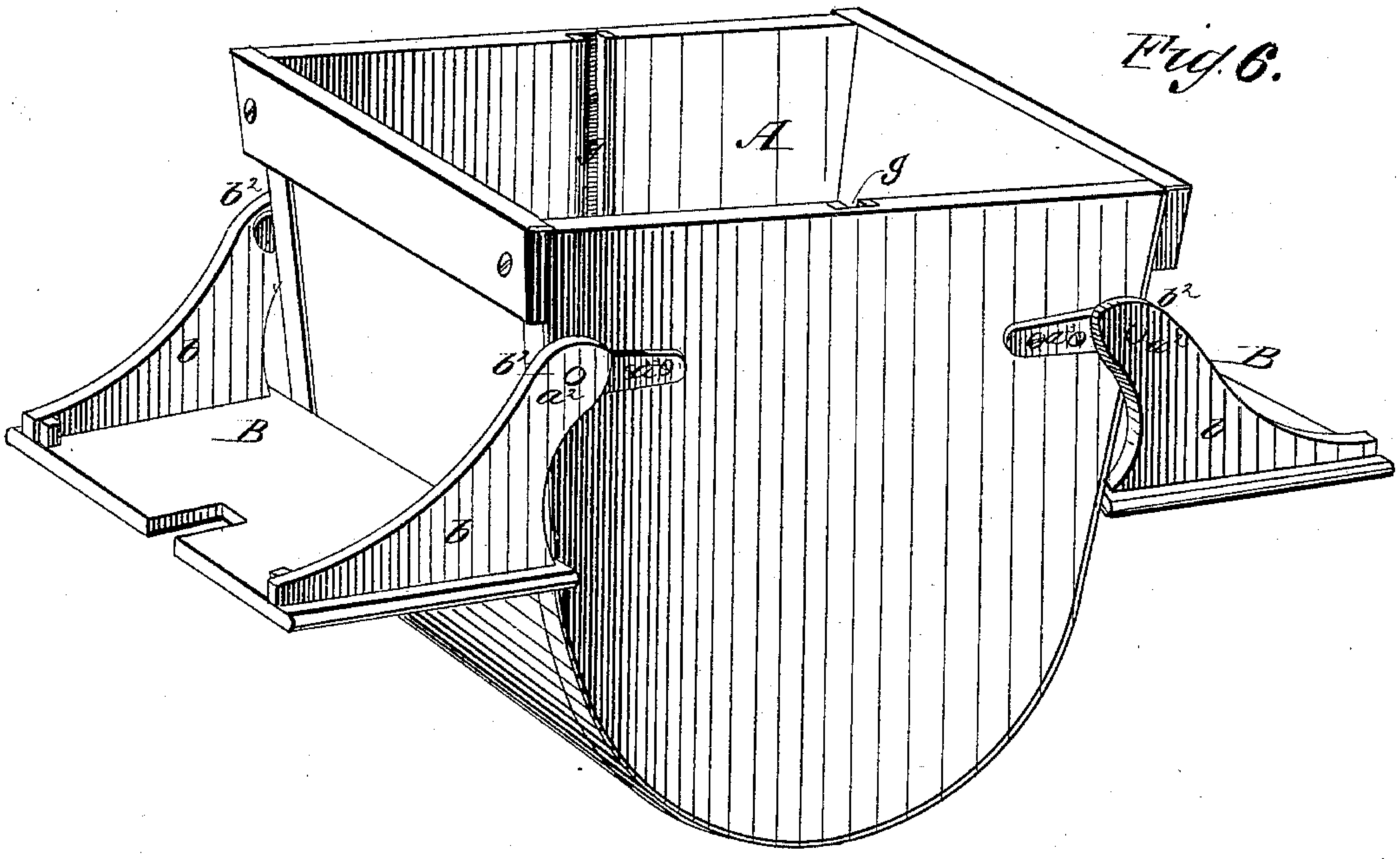
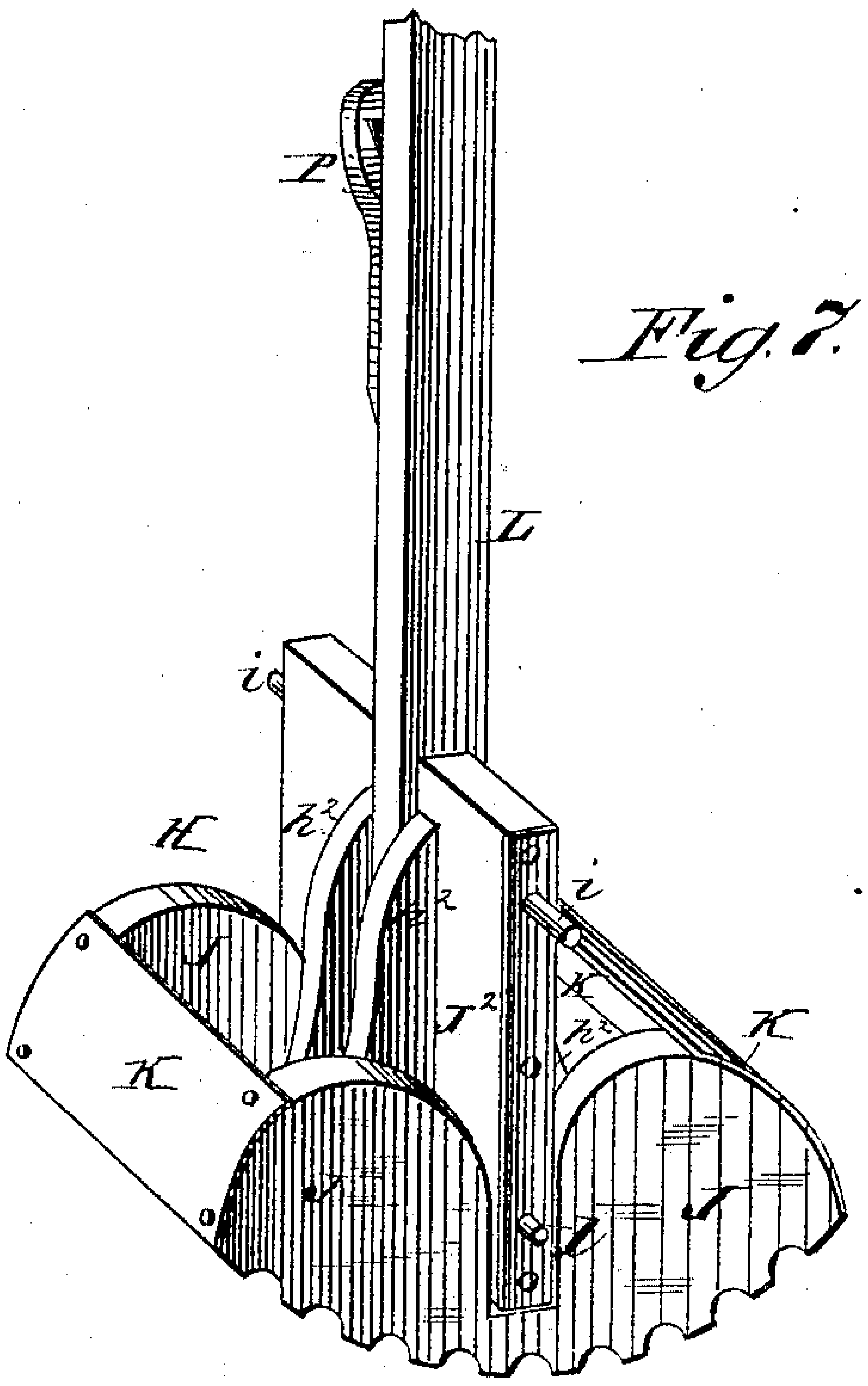


Fig. 6.

Fig. 7.



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N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

AUGUST SCHARNWEBER, OF DAVENPORT, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 271,369, dated January 30, 1883.

Application filed April 26, 1882. (Model.)

To all whom it may concern:

Be it known that I, AUGUST SCHARNWEBER, of Davenport, in the county of Scott and State of Iowa, have invented a new and useful Improvement in Washing-Machines, of which the following is a full, clear, and exact description.

The invention consists in certain details of construction, arrangement, and operation, as hereinafter more particularly described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical sectional view of an apparatus embodying my improvements, showing the rubber elevated. Fig. 2 is a vertical sectional view transversely to Fig. 1. Fig. 3 is a top view of a portion of the lower rubber or belt. Fig. 4 is a section taken in the line *z z* of Fig. 3. Fig. 5 is a side view of the tub, showing the lid turned over to form tables. Fig. 6 is a perspective view of the same. Fig. 7 is a perspective view of the upper rubber and operating-handle.

The tub A is of approximate semi-cylindrical form, and rests upon legs *a*. It is provided with a faucet for drawing off the water, and it may be lined with galvanized iron or other metal. The lid or cover is made in two halves or sections, B B. At each end of each section is a transverse brace or bracket, *b*, which terminates in a perforated lug, b^2. On the two opposite sides of the tub A, near the upper corners, are projecting pins or studs a^2, carried by plates a^3, which are secured to the tub by screws. The perforated lugs b^2 are sprung over the pins or studs a^2, so as to form hinges, and by this means the lid-sections B are connected to the tub at opposite sides, so that when they are raised they may be turned over to a horizontal position outside of the tub and serve as tables for clothes, as shown in dotted lines in Fig. 1 and full lines in Figs. 5 and 6.

The lower wash-board or rubber, C, consists of a flexible belt composed of a series of slats or bars, *d*, strung on two ropes or cords, *e*, the ends of which are attached to a frame composed of side rails, F, and end rails, G. The side rails, F, are provided with trunnions *f*, which work in grooves *g* in the side walls of the tub A, at about the center thereof.

The upper wash-board or rubber, H, is composed of bars *h*, running parallel with the side walls of the tub. The lower edge of each bar is curved in the form of an arc of a circle, and is provided with notches about equal in width to the width of the slats or bars *d*. The upper edge of each of the two outermost bars is formed with two arcs, J J, each having a radius of less than half that of the lower edge. The end of the bars *h* are connected by curved plates K, covering about one-half of the arcs J, thus serving the double purpose of connecting the bars to form a frame, and also preventing splashing when the rubber is oscillated. From the two central bars, *h*, of the upper rubber extend four vertical standards, h^2—two on each bar. Between these standards at the center and between the two arcs J at the sides fits a board, J^2, the ends of which are provided with gudgeons or trunnions *l*, near the bottom, for engagement with grooves g^2 in the side rails of the lower wash-board, and with longer gudgeons or trunnions *i*, near the top, for engagement with the grooves *g* in the side walls of the tub. Between the standards h^2 and on either side of the board J^2 fits the forked lower portion of a handle or lever, L.

The operation is as follows: The tub A being supplied with water and the clothes being placed therein, resting on the belt or lower rubber, C, when the handle or lever L is oscillated, the gudgeons or trunnions *i* serve as the fulcrum for the lever, and said lever and the board J^2 move the upper rubber, in one direction, while the gudgeon *l*, working in the grooves g^2 of the lower belt-rubber above the points where its trunnions *f* rests in the groove *g* of the tub, move the lower belt-rubber in the opposite direction. Thus the two rubbing parts are alternately oscillated in the opposite directions, and the clothes are thoroughly rubbed and rolled between the rubbers, being quickly cleaned without being torn or otherwise damaged.

In order to provide for different quantities of clothes to be washed, the upper rubber is adjustable as to height by means of a rod, M, extending upward from it and working telescopically in the arm or handle L. The upper end of the rod M is bent outward through a slot in the handle, and engages with a spring-lever, P, provided with teeth, by which means the rubber is held at any height to which it may be adjusted.

This washing-machine may be operated by hand, foot, steam, or other power by suitably-arranged lever, pulley, and belt, or other connections for swinging the lever L, as above described.

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

1. In a washing-machine, the combination, with the suds-box A and lids B, of the brackets *b*, secured to the ends of the lids B, provided with holes b^2, the studs a^2, and plates a^3, secured to the suds-box, as shown and described.

2. The combination, with the suds-box A, provided with the grooves *g g*, the lower rubber, consisting of frame F G, the grooves $g^2\,g^2$ in F, and the studs *f*, of the lever L, the boards J^2, and the trunnions *l i*, substantially as shown and described.

3. The combination, with the upper and lower rubbers described, of the lever L, board J^2, trunnions *l* and *i*, and the grooves *g* in the tub, as shown and described.

4. The combination, with the upper rubber and the movable lever and board, of the adjusting device consisting of the spring-rack P, pivoted to the lever L, and the hook-rod M, secured at its lower end to the rubber, as shown and described.

AUGUST SCHARNWEBER.

Witnesses:
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GEO. W. BAWDEN.