

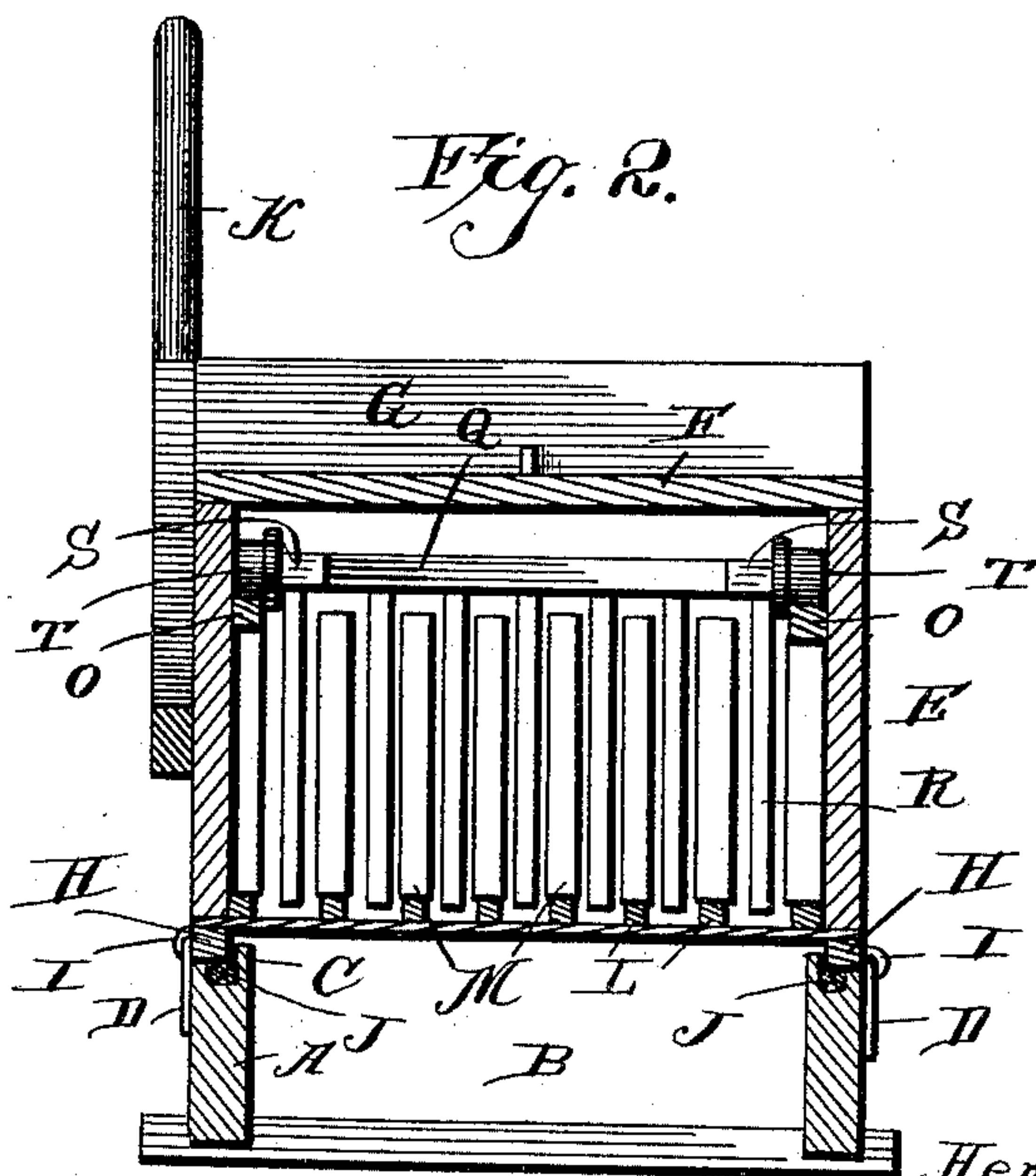
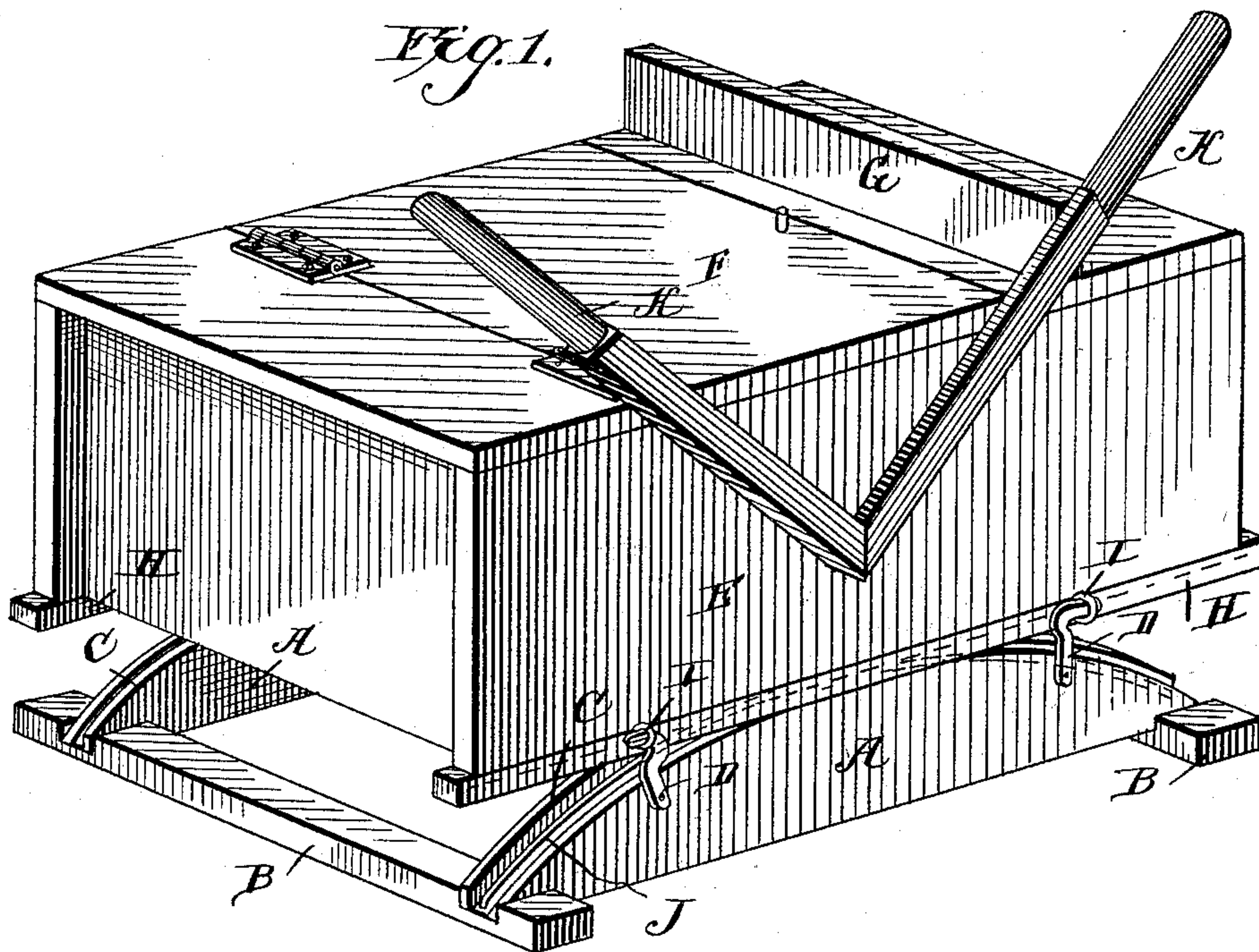
(No Model.)

2 Sheets—Sheet 1.

H. O. KELSEY & D. H. GIBSON.
WASHING MACHINE.

No. 409,794.

Patented Aug. 27, 1889.



Witnesses
Henry J. Dietrich
R. W. Bishop.

Inventors
Henry O. Kelsey, and
David H. Gibson,
By their Attorneys
C. H. Snow

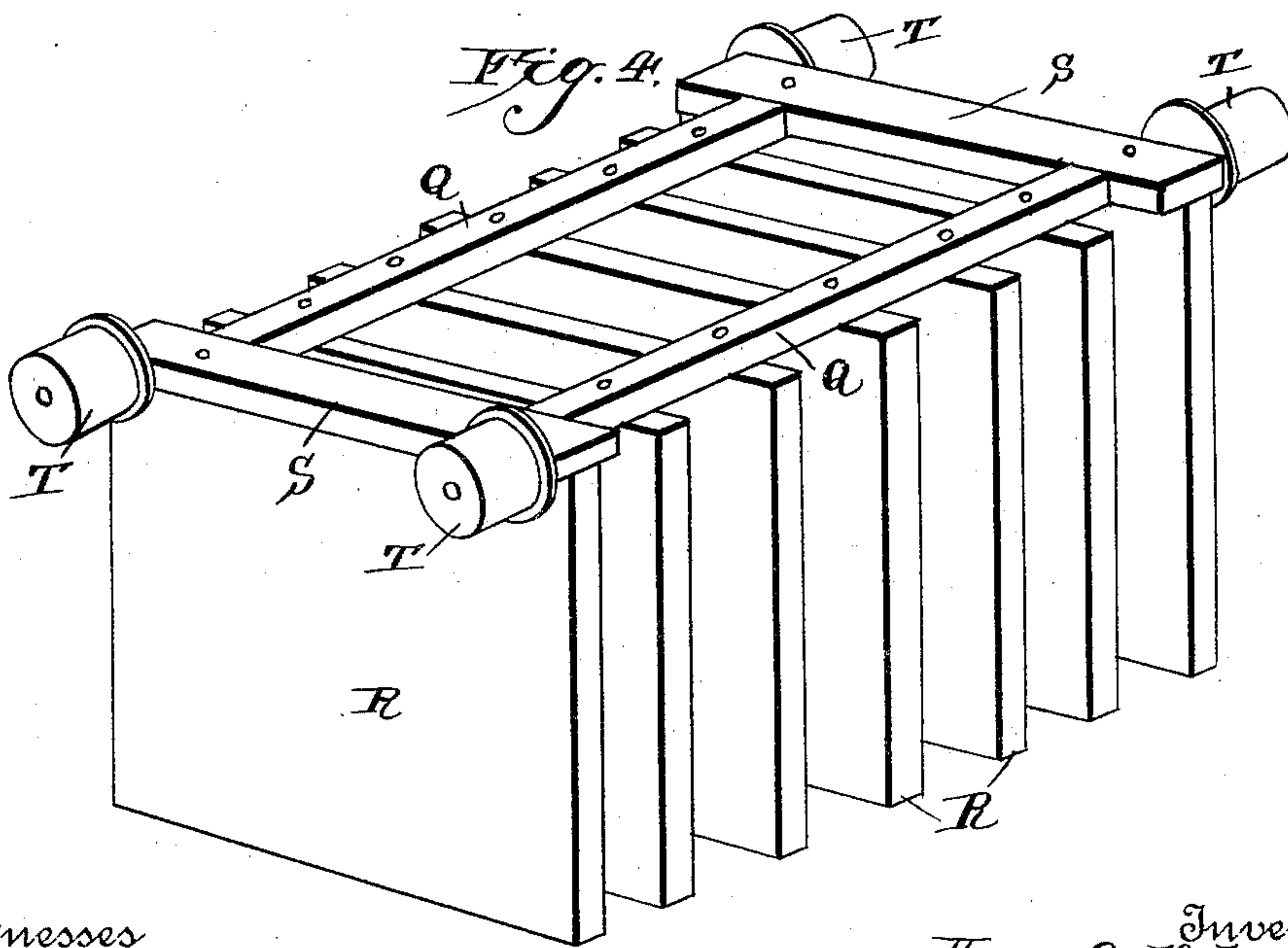
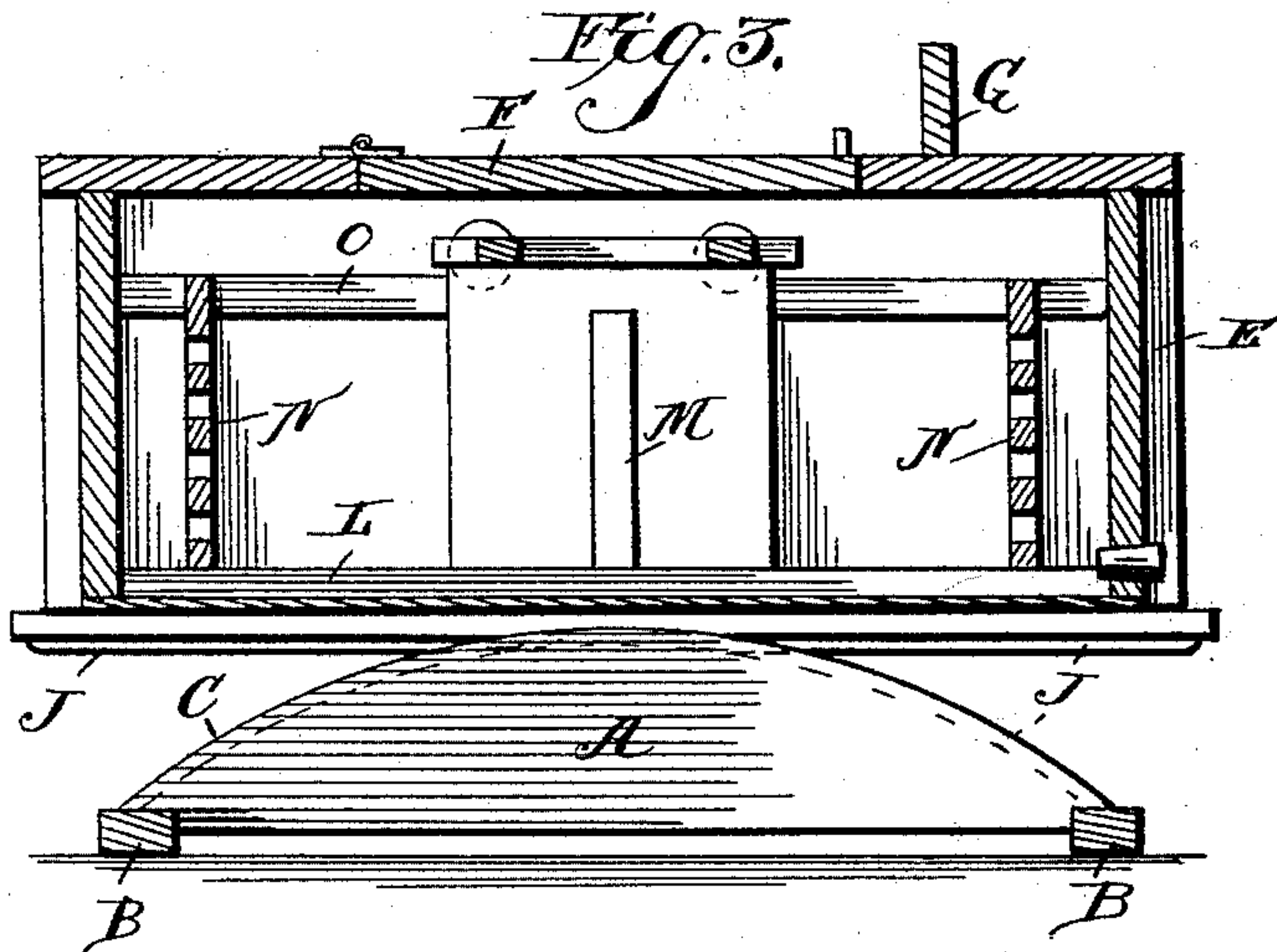
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UNITED STATES PATENT OFFICE.

HENRY OLIN KELSEY AND DAVID HARNED GIBSON, OF WEST SALAMANCA,
NEW YORK.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 409,794, dated August 27, 1889.

Application filed February 21, 1889. Serial No. 300,652. (No model.)

To all whom it may concern:

Be it known that we, HENRY OLIN KELSEY and DAVID HARNED GIBSON, citizens of the United States, residing at West Salamanca, in the county of Cattaraugus and State of New York, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

Our invention relates to improvements in washing-machines; and it consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view. Fig. 2 is a transverse vertical section. Fig. 3 is a longitudinal vertical section. Fig. 4 is a detail perspective view of the traveling carriage.

The base or support of our improved washing-machine consists of the rockers or arc-shaped side bars A, connected at their ends by the cross-bars B, and having longitudinal ribs or flanges C extending along their upper edges at their inner sides. Hooks D are pivoted on the outer sides of the rockers, and are adapted to engage staples on the tub or suds-box, as will be hereinafter more fully referred to.

The suds-box E is a rectangular box, provided on its upper side with the swinging lid F, which is adapted to be raised to permit the insertion of the clothes into the suds-box, and also with a transverse rail G, to which a wringer may be secured, as will be readily understood. On its under side the suds-box is provided with the longitudinal rails H, which rest upon the upper edges of the rockers and support the suds-box thereon. On the outer sides of these rails H we secure staples I, which are adapted to be engaged by the hooks D on the rockers when the machine is not in use, in order to secure the suds-box against movement, and thereby prevent injury to the parts. In order to secure the suds-box to the rockers, and also to facilitate the operation of the same, we employ springs J, which have their lower ends secured to the opposite ends of the rockers and extend up over the edges of the rockers in reverse directions and have their upper ends secured to the ends of the suds-box.

By the arrangement and construction just described the suds-box will be positively held upon the rockers, and will be prevented from lateral movement thereon, the ribs or flanges of the rockers serving to prevent the suds-box moving laterally so as to slip from the rockers, while the springs will be alternately bent and straightened as the machine is operated. The bending of the springs causes them to exert a tension against the lowered end of the suds-box, so as to aid the operator in moving the suds-box in the contrary direction.

The suds-box is provided with operating-handles K K, secured to its side and projecting upward above the same, so that they can be easily grasped by the operator when it is desired to use the machine.

Within the suds-box we secure upon the bottom of the same a series of longitudinal bars L, which extend the entire length of the suds-box and have erected upon their upper sides, at their centers, a series of posts M, which extend upward to near the top of the suds-box, so as to practically divide the suds-box into two compartments. Near the ends of the suds-box we provide the vertical transverse perforated plates N, which extend entirely across the suds-box and have their lower edges resting on the upper sides of the bars L, so as to leave spaces between the said bars for the passage of the water in the suds-box.

To the inner faces of the sides of the suds-box and near the top of the same we secure the cleats O, which extend the entire length of the said box and on which the traveling agitator P is mounted.

The traveling agitator is composed of the main cross-bars Q, having a series of parallel arms R depending from their under sides, the end bars S, secured to the cross-bars Q, and the rollers T, journaled at the ends of the said end bars S. The rollers T rest upon the cleats O, and as the suds-box is oscillated will move over said cleats, so that the agitators will be caused to travel to and fro within the suds-box. The arms R, depending from the main cross-bar of the agitator, are arranged so as to correspond with the

spaces between the posts N, so that the agitator can move past said posts in the operation of the machine.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the operation and advantages of our improved machine will be readily understood.

When it is desired to wash the clothes with our improved machine, the clothes, together with soap and water, are placed in the suds-box, the clothes being arranged between the posts M and the plates N, and the agitator being arranged in the center of the suds-box. The lid of the machine is then closed and the suds-box oscillated, as will be readily understood. The oscillation of the suds-box causes the agitator or beater to travel from end to end of the machine, so that it will be thrown violently upon the clothes, and the dirt consequently forced therefrom. Furthermore, as the suds-box is oscillated, the clothes will be thrown against the posts M, and the agitator will travel toward the clothes. The posts receive the clothes and throw them back toward the end plate, so that they will be effectively rubbed and the dirt loosened therefrom. By throwing the clothes backward toward the end plate in this manner the posts prevent the clothes catching and clogging under the agitator so as to be torn and destroyed. When the clothes have been thoroughly cleansed, a wringer is secured to the rail on the upper side of the suds-box, and the clothes then taken from the suds-box and passed through the wringer in the usual manner.

Our improved machine washes the clothes very rapidly and easily and does not wear or injure the fabrics. The vertical posts, it will be seen, serve as center guards to prevent the clothes passing the center of the machine, so as to interfere with the action of the agitator.

It will be seen that our machine is composed of very few parts, which are very compactly arranged, and is strong and durable.

Having thus described our invention, what

we claim, and desire to secure by Letters Patent, is—

1. The combination, with the suds-box having internal ways near the top, of the vertical posts rising from the bottom thereof at the center of the same, and the traveling agitator mounted on the ways of the suds-box, moving over the posts and having a series of depending vertical arms arranged in alternate planes with said posts, as set forth.

2. The combination, with the suds-box, of the longitudinal bars secured upon the bottom of the same, the vertical posts erected on said bars at the centers of the same, the perforated vertical plates arranged transversely on said bars near the ends of the suds-box, and the traveling agitator mounted in the said box and moving between the perforated plates and past the posts, as set forth.

3. The combination of the suds-box having the cleats or ways, the traveling agitator provided with rollers resting on said cleats, the perforated plates N, arranged transversely within the suds-box, and between which plates the agitator works, the posts M, rising from the bottom of the suds-box, and the arms depending from the agitator and adapted to pass between the posts, as set forth.

4. The combination of the suds-box having the series of bars L secured to its bottom, which extend the entire length thereof and have the series of posts M, which extend upward to near the top of the suds-box, so as to practically divide the suds-box into two compartments, and the traveling agitator having a series of arms R, which depend therefrom and register with the spaces between the posts M, as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

HENRY OLIN KELSEY.
DAVID HARNED GIBSON.

Witnesses:

W. W. WELLMAN,
E. F. HOY.