

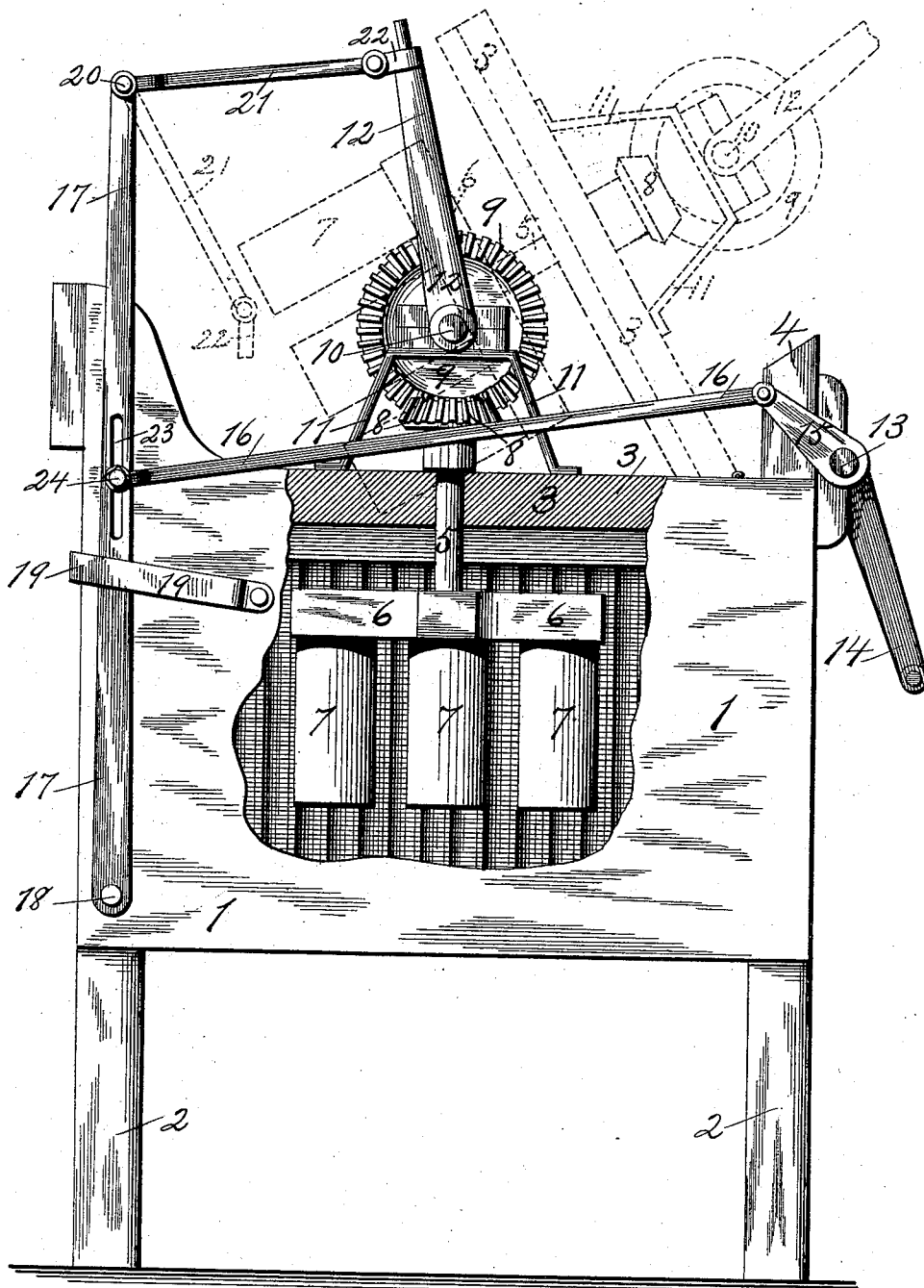
(No Model.)

G. S. TOUGAS & F. FOURNIER.

WASHING MACHINE.

No. 370,908.

Patented Oct. 4, 1887.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE S. TOUGAS AND FRANÇOIS FOURNIER, OF GRAFTON, MASSACHUSETTS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 370,908, dated October 4, 1887.

Application filed June 4, 1887. Serial No. 240,322. (No model.)

To all whom it may concern:

Be it known that we, GEORGE S. TOUGAS, a citizen of the United States, and FRANÇOIS FOURNIER, a subject of the Queen of Great Britain, both residing at Grafton, in the county of Worcester and State of Massachusetts, have jointly invented certain new and useful Improvements in Washing-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which, in connection with the drawing making a part of this specification, will enable others skilled in the art to which our invention belongs to make and use the same.

Our invention relates to washing-machines of that class in which the clothes are cleaned by being stirred or agitated in boiling water, and more especially to the mechanism for operating the stirrer in said machines; and our invention consists in certain novel features of construction, arrangement, and combination of the several parts of a washing-machine of the class above specified, as will be hereinafter fully described, and the nature thereof indicated by the claims.

In the accompanying drawing is shown a side elevation of a washing-machine embodying our improvements, a portion of one side being broken away to show the interior of the suds-box. The dotted lines show the hinged lid or cover and parts connected therewith partially raised and the mechanism for operating the stirrer mechanism disconnected therefrom.

In said drawing, 1 is the suds-box, of ordinary construction, having its interior sides or walls provided with corrugated lining or washboards in the usual manner. The box 1 is preferably of square or rectangular shape and supported upon legs 2, and provided with a hinged lid or cover, 3, which, when opened and turned back, rests upon a projecting support, 4, at one end of the box 1.

Through the central part of the cover 3 extends the vertical shaft 5 of the agitator or stirrer 6, having downwardly-projecting arms 7. The shaft 5 has its bearing in the cover 3, and is provided with a bevel-gear, 8, upon its upper end, which meshes into and is driven by a bevel-gear, 9, rigidly mounted on a shaft, 10,

supported in a frame or standard, 11, secured upon the upper side of the cover 3.

An upright arm, 12, is secured upon the shaft 10 of the gear 9, and the backward and forward motion of said arm communicates, through the gears 8 and 9, a reciprocating motion to the stirrer 6 and arms 7, causing the same to be rotated first in one direction and then in the other within the suds-box 1, and to rub the clothes against the corrugated lining of said box.

We will now describe our improved mechanism for operating the arm 12 of the stirrer mechanism, so that the stirrer may be operated very easily and with little exertion and at a high rate of speed, thus producing more satisfactory results.

At one end of the suds-box 1 is mounted a crank-shaft, 13, provided at one end with a handle, 14, for operating said shaft, and at the other end with a crank, 15, connected by a crank-connector, 16, with a lever, 17, pivoted on a stud, 18, at its lower end to the box 1, and held in position against the side of the box by the strap or loop 19, secured thereto.

In the upper end of the lever 17 is pivoted, on a pin, 20, one end of a rod, 21. The other end of said rod 21 is provided with an eye or loop, 22, pivoted thereon, and adapted to fit over the upper end of the arm 12, (see full lines in the drawing,) thus connecting the arm 12 of the stirrer mechanism with the lever 17.

When it is desired to raise the lid or cover 3, the free end of the rod 21 is raised up, disconnecting the arm 12 of the stirrer mechanism from said rod, which drops down into the position shown by dotted lines in the drawing.

In order to vary the degree of rotation of the stirrer 6 and arms 7, the outer end of the crank-connector 16 may be adjustably connected with the upright lever 17 by means of a slot, 23, in said lever and a bolt, 24, extending through said slot and the end of the crank-connector 16, as shown in the drawing.

The operation of the mechanism for operating the arm 12 of the stirrer mechanism will be clearly understood by those skilled in the art from the above description, in connection with the drawing. The operator, by means of the handle 14, causes the crank-shaft 13 to

revolve continuously in either direction, and through the intervention of the crank 15 and crank-connector 16 the lever 17 to have a reciprocation motion back and forth, which is
 5 communicated to the arm 12 of the stirrer mechanism through the rod 21, and the reciprocating motion of the arm 12 is communicated to the stirrer 6 and arms 7 thereof
 10 through the shaft 10, bevel-gears 8 and 9, and vertical shaft 5, as hereinbefore described.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a washing-machine, the combination,
 15 with a suds-box provided with a corrugated lining upon the interior thereof, a hinged cover, and a stirrer mechanism supported upon said cover, of means for operating said stirrer mechanism, consisting of a crank-shaft, crank,
 20 crank-connector, a lever pivoted at one end on said box, and a rod connecting the other end of said lever with the operating-lever of the stirrer mechanism, and adapted to be dis-

connected therefrom to open the cover of the suds-box, all combined together and operated
 25 substantially as set forth.

2. In a washing-machine of the class described, mechanism for operating the stirrer, consisting of a crank-shaft provided with a handle, a crank, a crank-connector adjustably
 30 secured at its outer end to an upright lever, and said lever pivoted at one end, and a rod pivoted to the other end of said lever and provided with an eye or loop pivoted in the outer
 35 end thereof, for the purpose stated, in combination with an upright rocking arm mounted on a horizontal shaft, and said shaft and a
 40 bevel-gear secured thereon and meshing into and operating a bevel-gear secured on the vertical shaft of the stirrer, all substantially as shown and described.

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