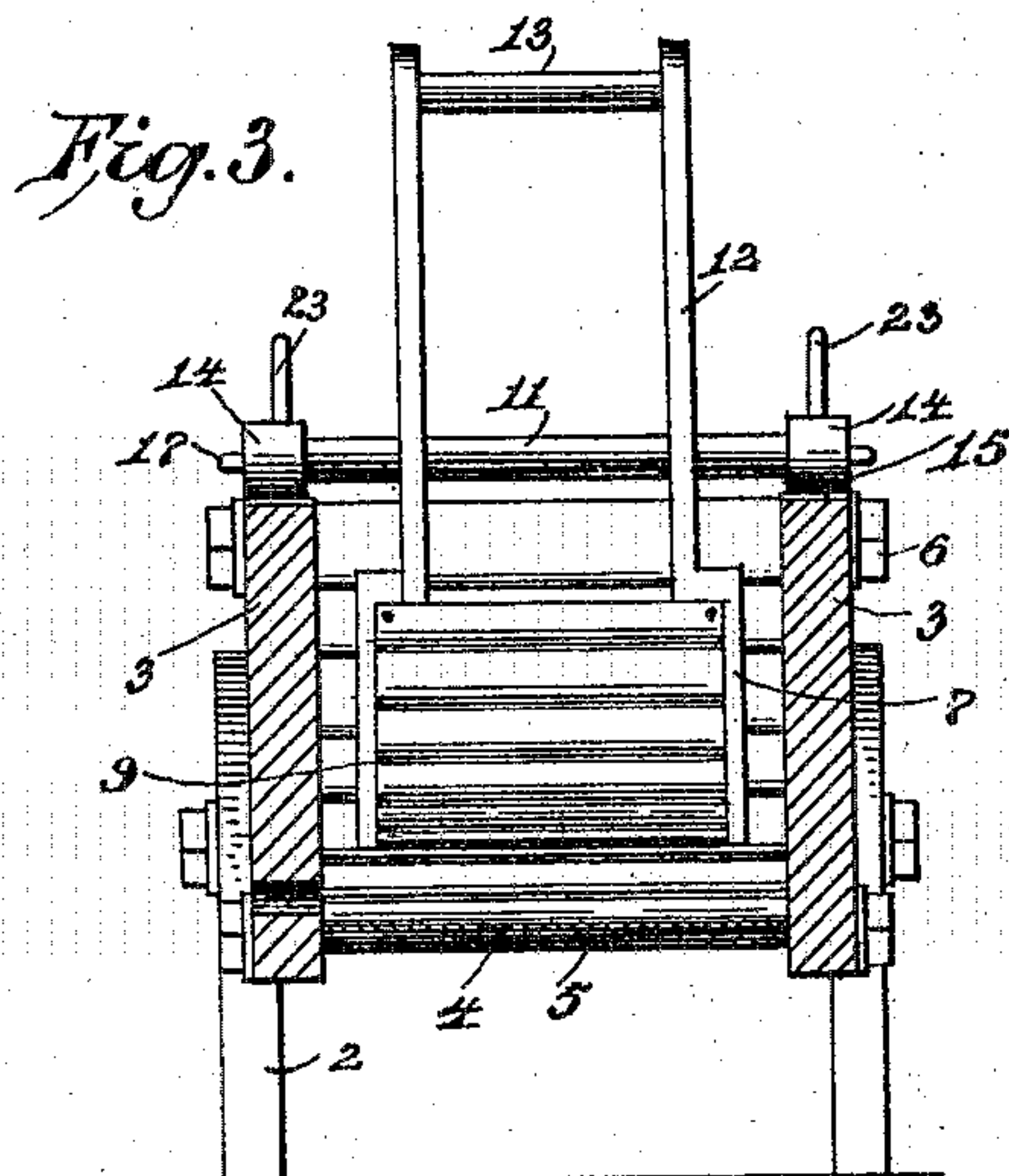
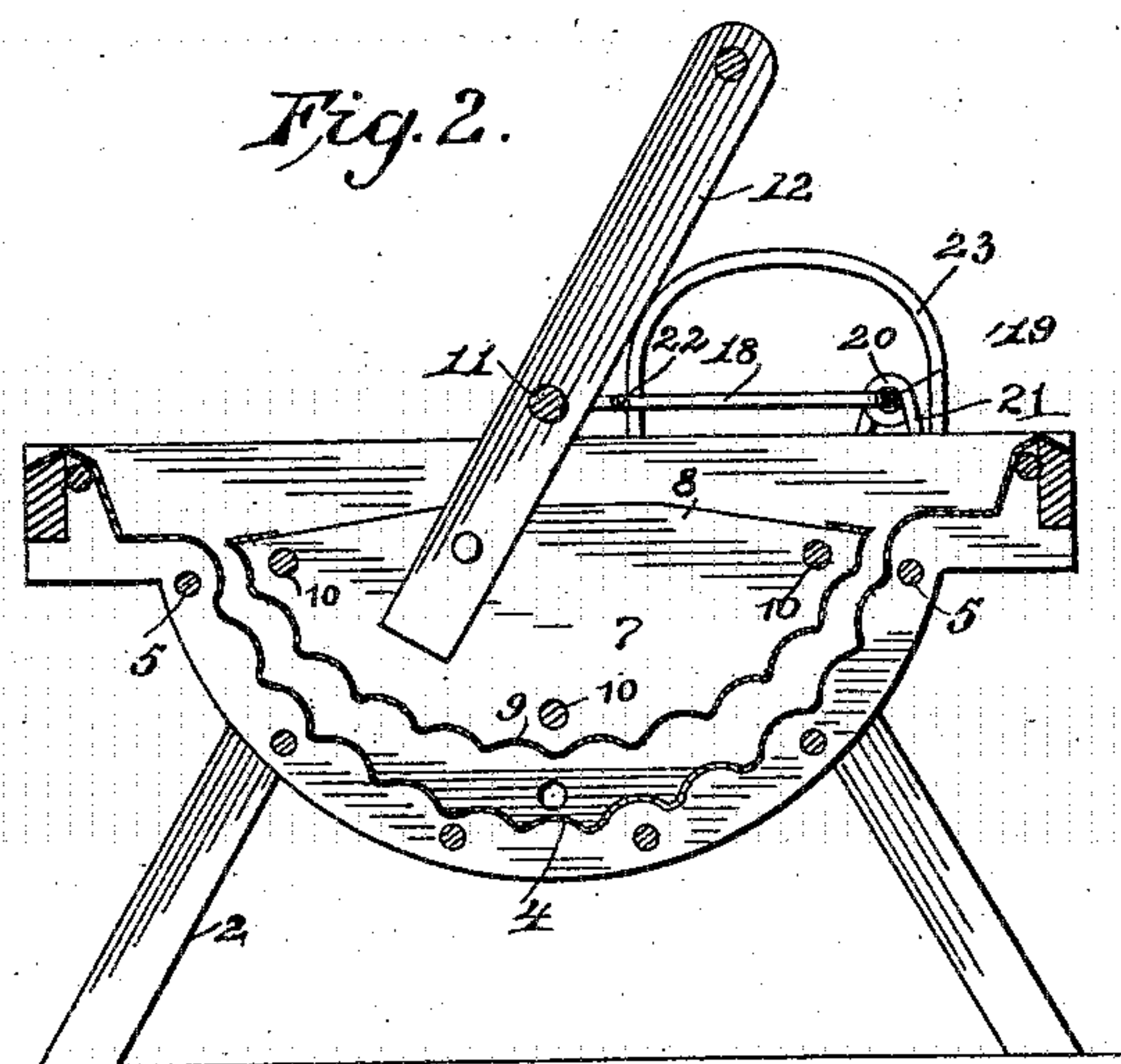
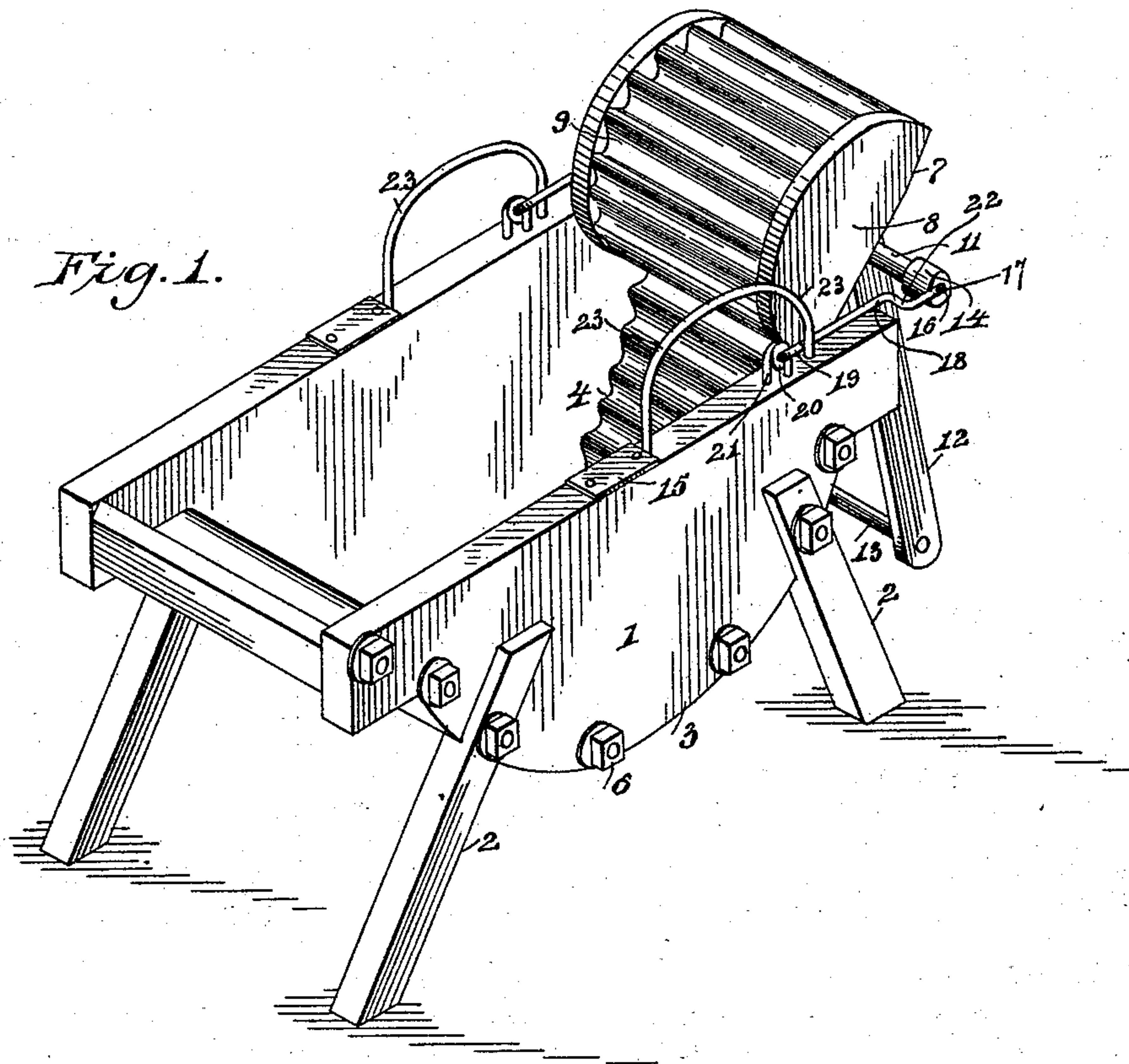


(Model.)

W. R. SWINDLER.
WASHING MACHINE.

No. 455,367.

Patented July 7, 1891.



Witnesses

L. M. Gallahan

H. F. Riley

By his Attorneys,

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Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM R. SWINDLER, OF FINDLAY, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 455,367, dated July 7, 1891.

Application filed October 30, 1890. Serial No. 369,851. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM R. SWINDLER, a citizen of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented a new and useful Washing-Machine, of which the following is a specification.

The invention relates to improvements in washing-machines.

The object of the present invention is to simplify and improve the construction of washing-machines having an oscillating or swinging rubber and render the operation easy and at the expense of comparatively small amount of exertion on the part of the operator, and to avoid the necessity of recessing the body to provide journal-bearings, thereby enabling the body to be filled to its utmost capacity without danger of overflowing.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a washing-machine constructed in accordance with this invention, the oscillating rubber being swung back. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a transverse sectional view.

Referring to the accompanying drawings, 1 designates a semi-cylindrical body mounted upon legs 2, and consisting of approximately semicircular side pieces 3, connected by a curved bottom 4, which is corrugated and constructed of sheet-zinc or of similar metal, to present a rubbing-face to clothes; and the said sides 3 are secured to the bottom and to each other by transverse rods 5, which have their ends threaded and engaged by nuts 6, which bear against washers that are interposed between them and the sides 3 to prevent injury to the latter.

During the operation of washing, clothes are passed over the corrugated bottom and are operated upon by an oscillating rubber 7, composed of segmental sides 8, and a curved rubbing-face 9, constructed of corrugated sheet-zinc or similar metal, and the sides are secured together by transverse rods 10, each of which have one end provided with a head and the other end threaded and engaged by

a nut, which is seated in a recess in the adjacent side 8. The oscillating rubber is suspended from a shaft 11 by means of handle-bars 12, which have their lower ends secured to the inner faces of the sides and their upper ends connected by the handle 13, by means of which the machine is operated. The shaft 11 passes through perforations in the handle-bars 12, which are rigidly secured to the shaft 11, and the latter is partially rotated during the operation of the machine, and is provided at its ends with loosely-fitting ferrules 14, to prevent the ends of the shaft becoming worn, and the upper edges of the sides 3 are provided with wear-plates 15, upon which the ferrules bear. The ends of the shaft 11 are provided with sockets 16, in which are arranged the ends 17 of rods 18, which have their other ends 19 formed into hooks, which engage eyes 20 of bearing-faces 21, arranged on the upper edges of the sides 3 near one end of the machine. By this construction the ends 19 of the rod 18 are hinged to the body, and the oscillating rubber is adapted to be swung back, as illustrated in Fig. 1 of the accompanying drawings, when the operation of washing has been completed or the body is to be refilled. The rods are provided at their ends 17 with outward bends 22, which form shoulders that engage curved guide-bars 23, when the oscillating rubber is in its operative position, and the hinged ends of the curved bars 23 avoid the necessity of recessing the body to provide bearings for the shaft 11, thereby enabling the body to be filled to its utmost capacity without danger of overflowing and leaking through the bearings. The curved guide-bars are approximately semicircular, and have their ends secured in the upper edges of the sides 3, and they form guides for the hinged bars 18, when the oscillating rubber is swung back, and they prevent the ends 17 of the hinged bar becoming disengaged from the sockets 16 of the shaft 11.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be understood by those skilled in the art.

What I claim is—

In a washing-machine, the combination of the body provided with the corrugated bot-

tom, the oscillating rubber having a corrugated rubbing-face, the shaft provided at its ends with ferrules forming sockets 16, the handle-bars mounted on the shaft and carrying the oscillating rubber, the curved guide-bars arranged on the sides of the body, and the bars 18, hinged within the curved guide-bars and provided at their ends 17 with outward bends, and arranged on the inner sides 10 of the guide-bars, whereby the bars 18 are

prevented moving laterally, substantially as described.

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

WILLIAM R. SWINDLER.

Witnesses:

SILAS M. SWINDLER,

T. L. EDGINGTON.