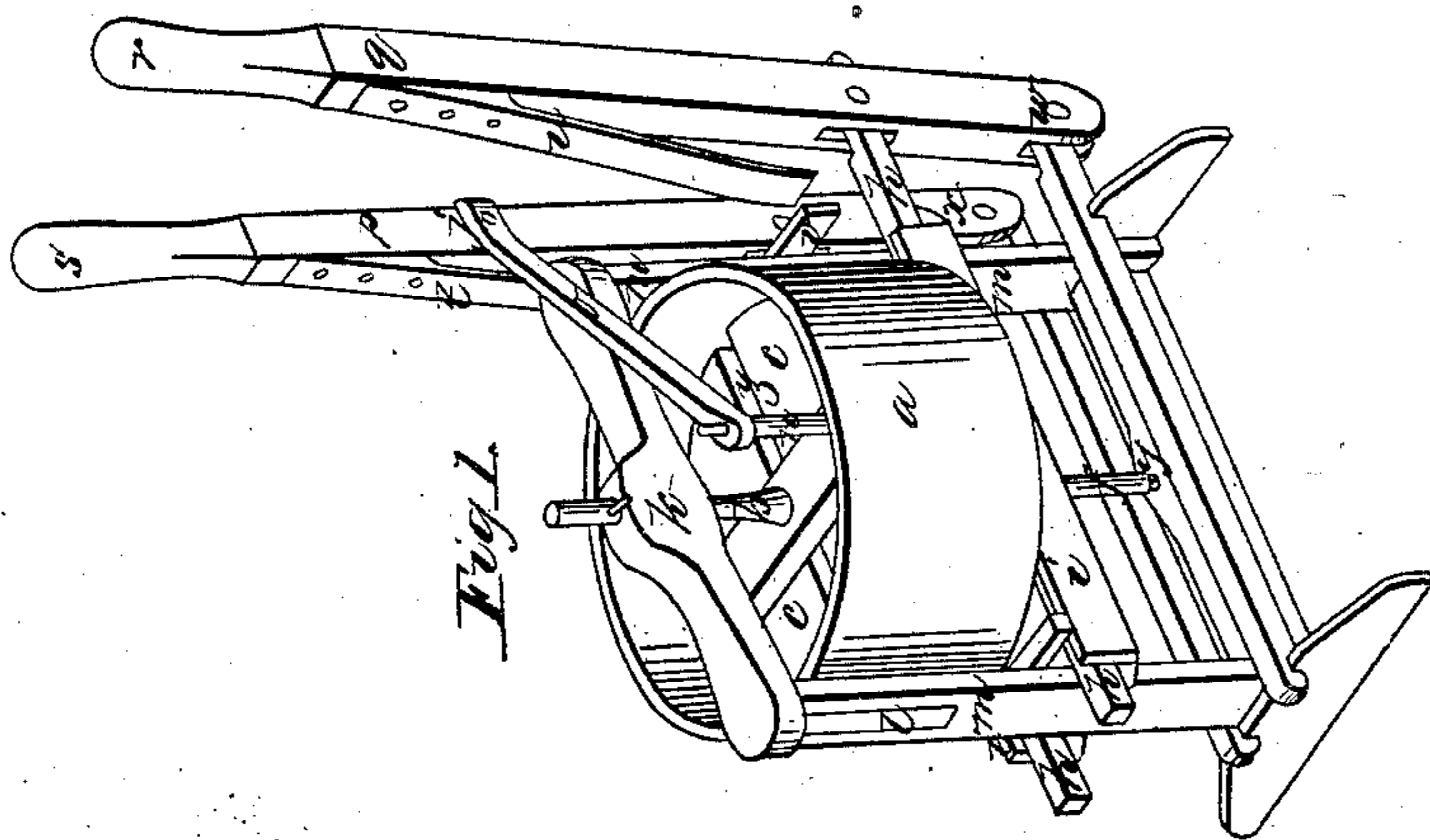
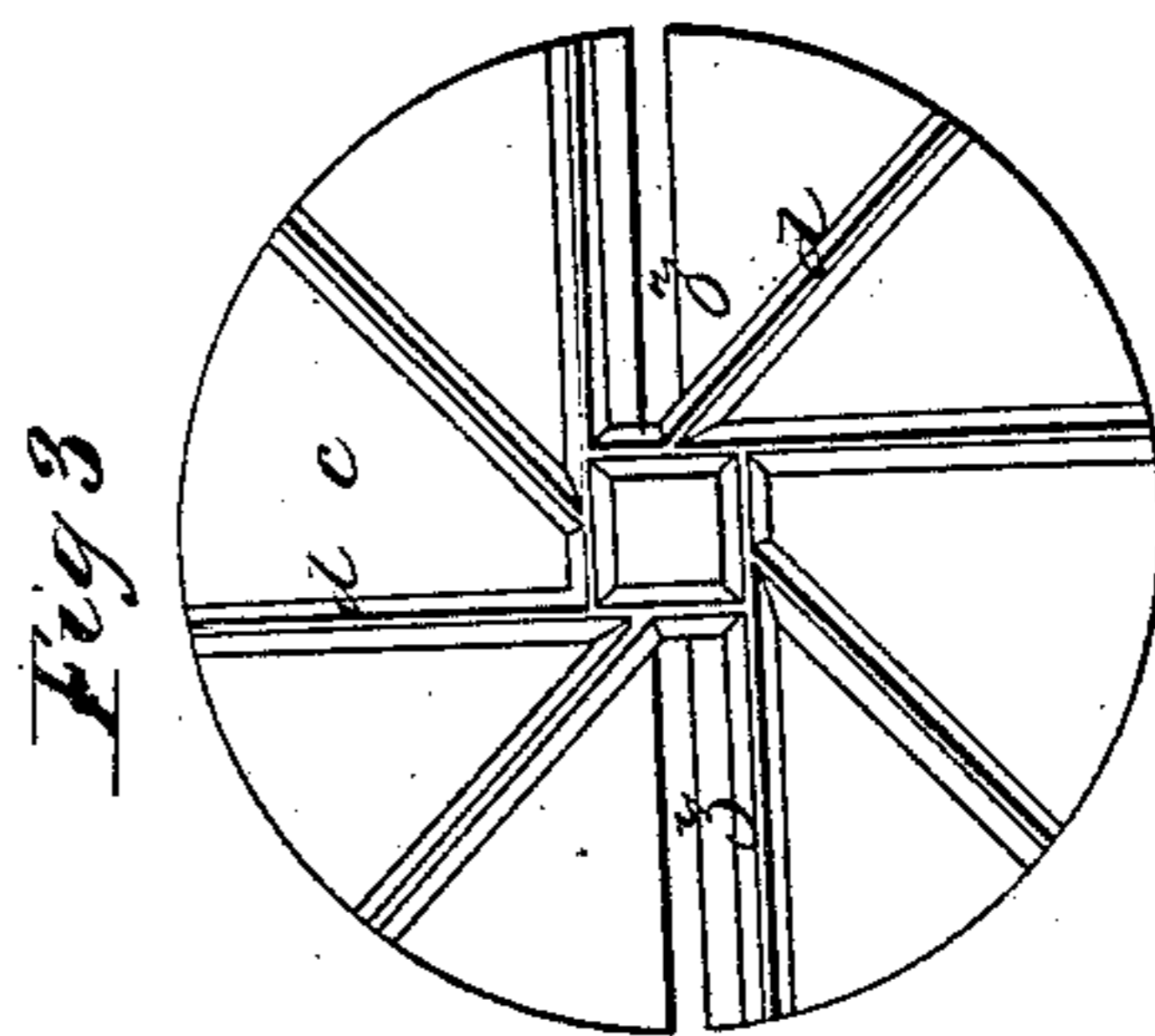
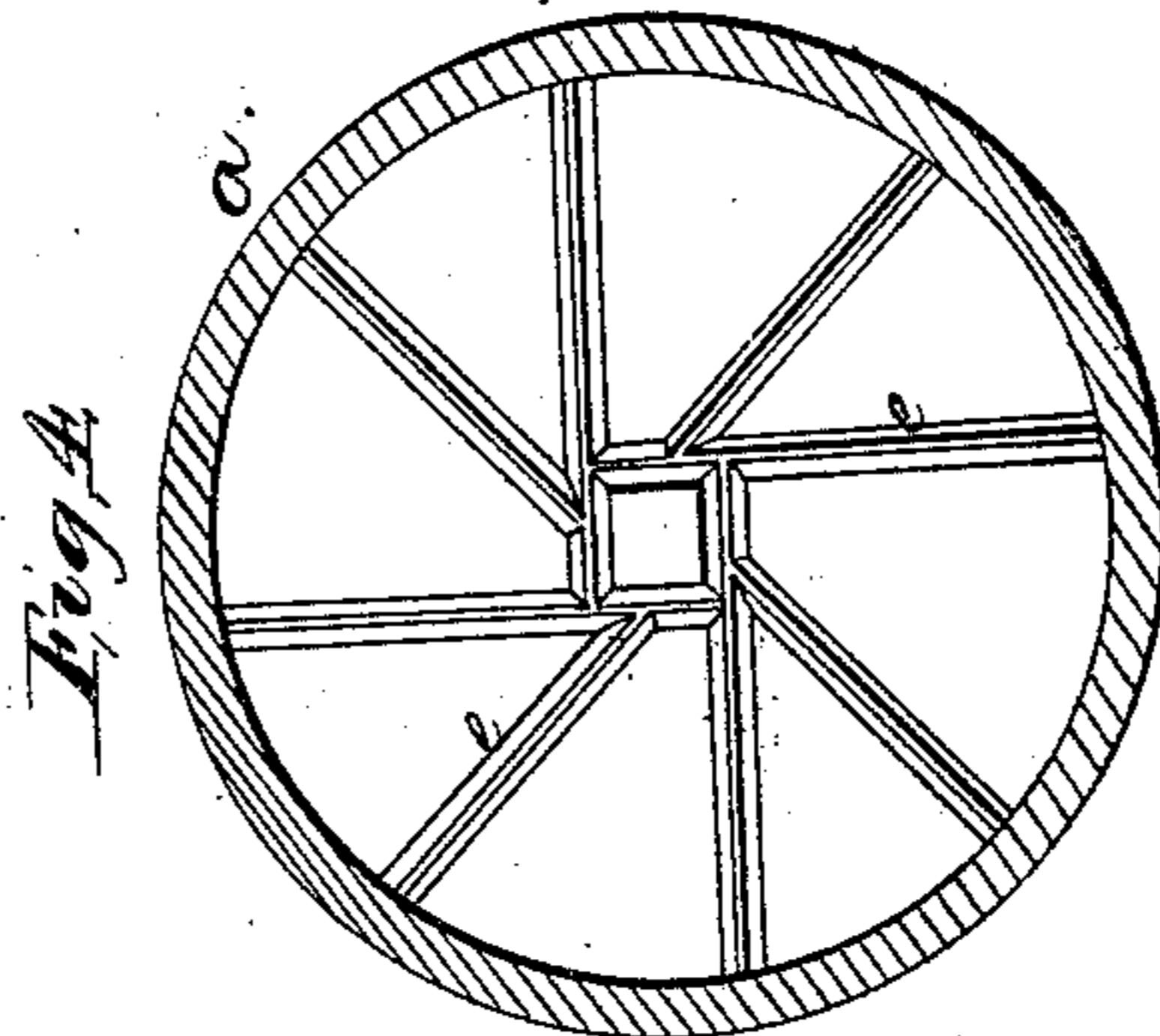
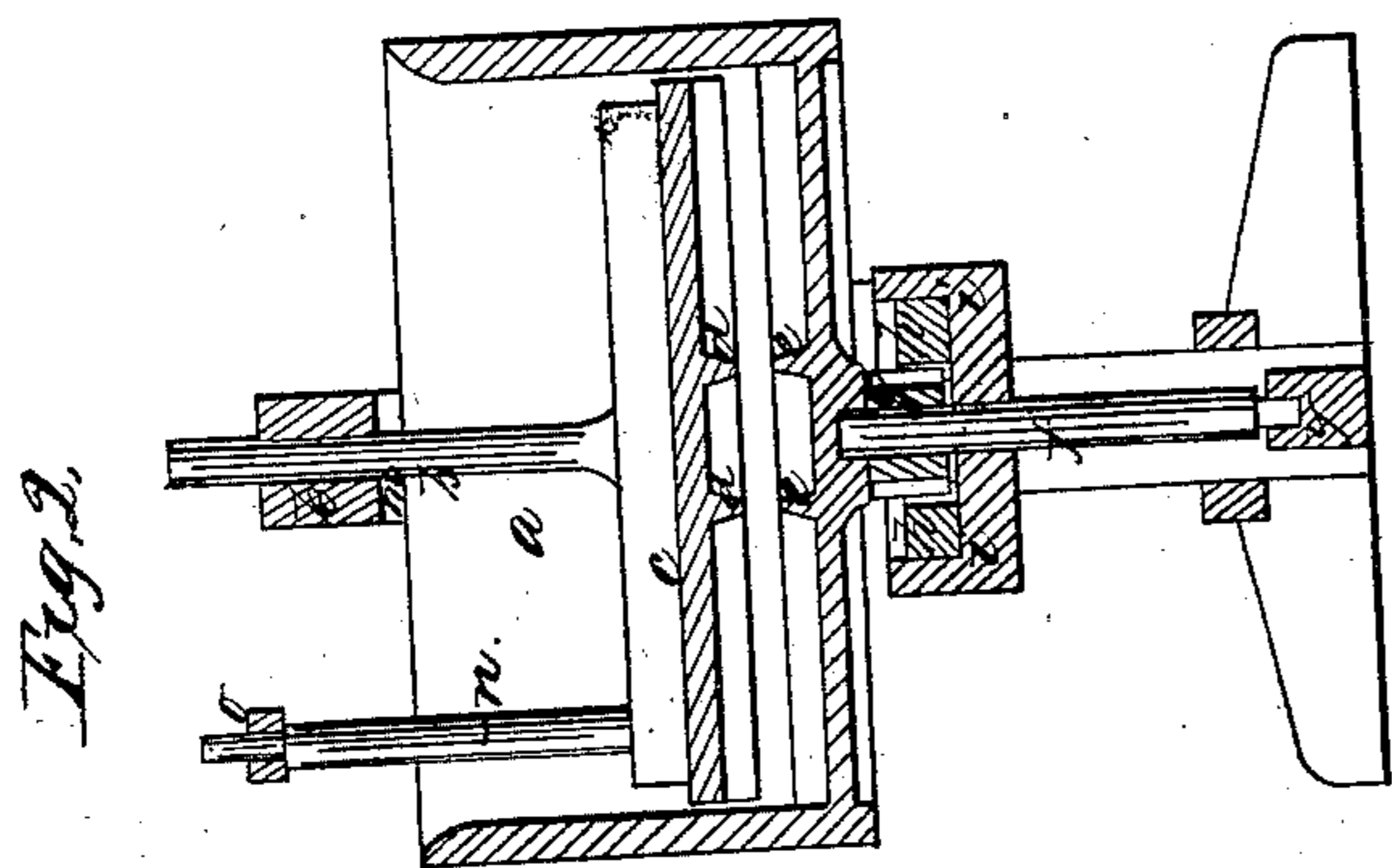


J. Bowen,
Washing Machine.

N^o 22,227.

Patented Dec. 7, 1858.



Witnesses,
James Burke
John W. Wilson

Inventor,
Jepe Bowen

UNITED STATES PATENT OFFICE.

JESSE BOWEN, OF YELLOW BUD, OHIO.

WASHING-MACHINE.

Specification of Letters Patent No. 22,227, dated December 7, 1858.

To all whom it may concern:

Be it known that I, JESSE BOWEN, of Yellow Bud, in the county of Ross and State of Ohio, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the whole machine. Fig. 2, a vertical section through the center of the washing tub. Fig. 3, a bottom view of the roller; and Fig. 4 a horizontal cross section through the tub, representing a top view of the ribbed bottom of the tub.

The tub *a*, which is to contain the water, and the clothes to be washed, has a vertical shaft *f*, extending from its bottom downward. This shaft rests in a step upon the cross piece *y*, and has a bearing in the bridge *i, i*, both pieces *y*, and *i, i* forming part of the framework of the machine.

A pinion *g*, is attached to the shaft *f*, and meshes with two horizontal racks *h, h*, sliding on and guided by the upright rails of bridge *i, i*. These racks are pivoted to two vertical levers *q, p*, which have their fulcras at *w*, and *x*. When the operator takes hold of the handles *s, r*, of the two levers, and works them alternately backward and forward, the two racks will slide alternately backward and forward, and thus cause the pinion and tub to revolve alternately in opposite directions. When the levers have been moved forward sufficiently far, springs *t, u*, attached to the levers press against a shaft *v*, projecting from the framework of the machine, and serve thus to limit the range of motion of the levers.

The rubber consists of disk *c*, provided with a slot *z* to let the water play through. The vertical shaft *b*, of the rubber has its bearing in cross bar *k*, so that the rubber can be freely turned.

A standard *n*, projecting from the rubber upward, is linked to lever *p*, by means of a

connecting rod *o*, which latter is pivoted to the lever at *j*. Thus as the lever is moved backward and forward, the rubber will be caused to describe a reciprocating circular motion, and as the standard *n*, is on the side opposite to the side where the lever *p*, is, the rubber will always revolve in a direction opposite to the direction of the revolution of the tub. The rubber shaft *b*, having free play in its bearing in the cross bar *k*, the rubber can play upward and downward so as to adapt itself to the clothes to be washed. When it is necessary to take the rubber out of the tub for the purpose of removing the washed clothes and replacing them by others, the connecting rod *o*, can be lifted from the standard *n*, and swung back around pivot *j*, and then the cross bar *k*, (which is provided with vertical rails *l, l*, sliding in grooves in the uprights *m, m*, of the framework) can be lifted and removed together with the rubber.

The bottom of the tub, as well as the under face of the rubber are provided with eccentric ribs *d*, and *e*, the ribs being so arranged (as will be understood from Figs. 3 and 4) that when the ribbed surfaces are placed so as to face each other, the ribs will cross each other and thus serve to twist and rub the clothes between them, and also by their inclination to force the water to and from their centers, and through the clothes to be washed.

Having thus fully described the nature and object of my invention, what I claim therein as new and desire to secure by Letters Patent is:—

The alternating rotation of the tub in one direction, and the similar rotation of the rubber in an opposite direction, by means of the levers, racks and pinion, arranged and operating as herein set forth.

JESSE BOWEN.

Witnesses:

JAMES BUSH,
JOHN W. WILSON.