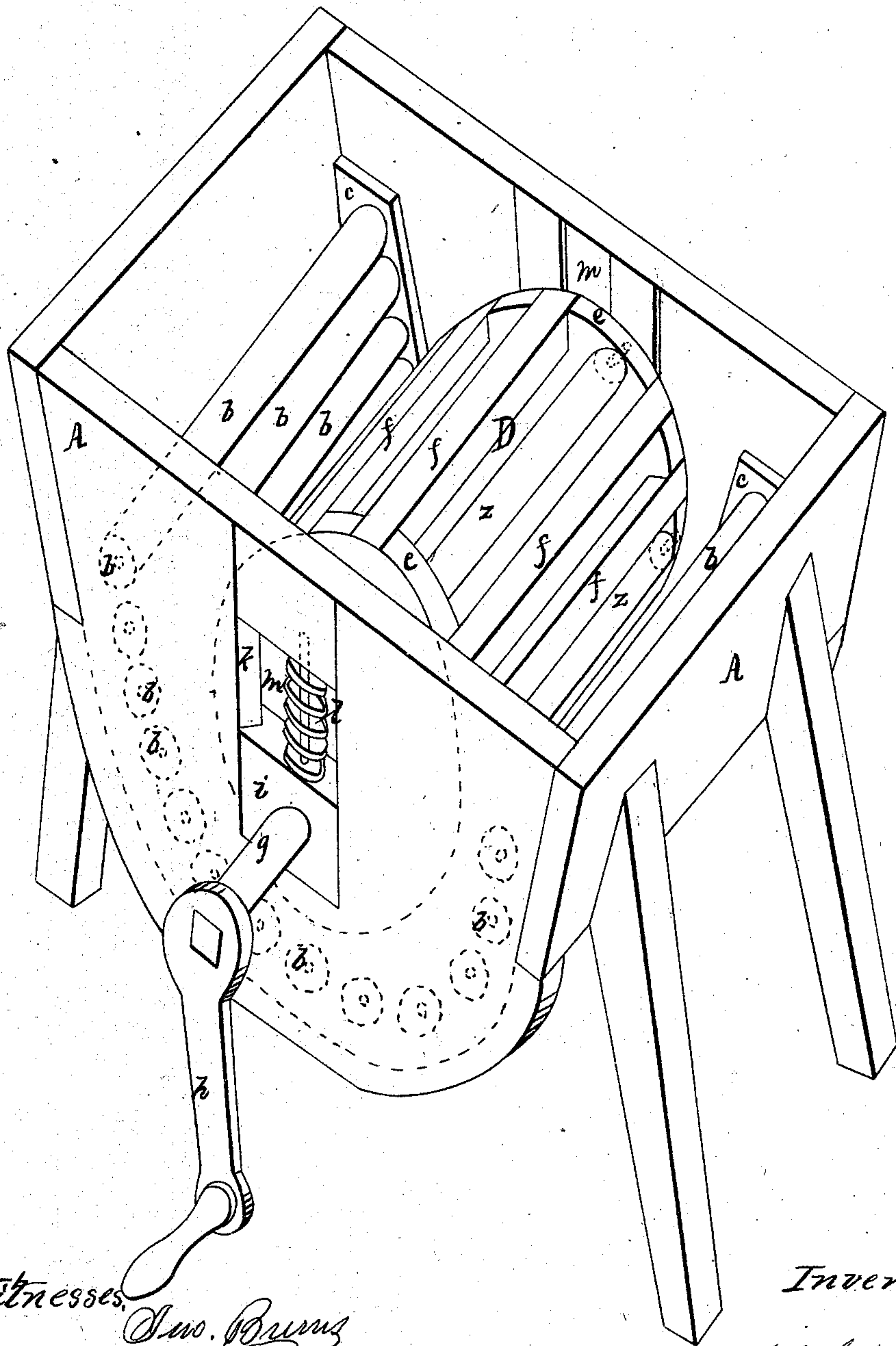


A. G. Heckrotte,
Washing Machine,
No 35,518, Patented June 10, 1862.



Witnesses,
Jno. Brown
My Remble Hall.

Inventor
A. G. Heckrotte

UNITED STATES PATENT OFFICE.

A. G. HECKROTTE, OF NEW YORK, N. Y.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. 35,518, dated June 10, 1862.

To all whom it may concern:

Be it known that I, A. G. HECKROTTE, of the city, county, and State of New York, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the letters of reference marked thereon.

My invention consists of a combination of a concave of rollers and an open cylinder of slats, or of slats and rollers, arranged in such a relation to each other that the clothes placed between the two at one side of the tub are rubbed, transferred, and pressed with a constantly-increasing pressure until they reach the lowest point of the tub, whence they are carried up the opposite side and over the rubbing-cylinder, and the operation repeated as often as may be necessary by the continued rotation of the cylinder and without securing or handling the clothes. The journals of the shaft upon which the cylinder is placed are provided with spring-bearings, that enable them to yield to any undue accumulation of clothes and to operate upon a few pieces nearly as well as upon the ordinary quantity for which the machine may have been designed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing, which represents a perspective view of the machine.

The tub A is formed with wooden sides and a curved zinc bottom flattened in the middle. The rollers *b* rotate on journals that are fitted into the bows *c*, placed in the angles of the sides and the bottom. The rubbing-cylinder D is composed of the two heads *e* and the slats *f*, and is carried upon the shaft *g*, which is furnished with a handle, *h*, on one of its ends. Where the shaft passes through the sides of the tub it is sustained in bearings *i*, which move vertically in the slides *k*. The bearings are pressed down by the springs *l*, the elasticity of which compensates for any irregularity in the quantity or arrangement of the material subjected to the action of the machine. The zinc plates *m* cover the openings in the

sides of the tub and move with the shaft *g* in suitable slides attached to the inner surfaces of the sides, the joint around the shaft being protected and kept tight by a washer of india-rubber. The heads of the cylinder D are dished on the outside, that it may tilt without striking the sides of the machine. Some of the permanent slats *f* of the rubbing-cylinder may be replaced by the rollers *z*, as is shown in the drawing; but the clothes thereby are not so readily transferred from side to side of the machine by the rotation of the cylinder. The frame and tub of the machine may be made in any convenient manner that admits the combination and application of the essential features of my invention.

When the machine is in operation, the clothes are carried around by the rotation of the rubbing-cylinder and are rubbed, turned, and compressed by the conjoint action of the cylinder and the rollers as often as may be required for their thorough cleansing. The spring-bearings of the rubbing-cylinder occasion a uniformity of pressure and of action that obviates any necessity for special attention, causes the machine to operate with unvarying efficiency, and to complete its work with more certainty and rapidity than could otherwise be obtained.

The formation of the tub with inclined sides and circular bottom flattened in the middle, and the conformation of the concave of rollers thereto afford a gradual increase of pressure upon the clothes from their introduction until they reach the bottom of the tub.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of the rollers *b*, the cylinder D, and the spring-bearings *i*, when constructed and arranged substantially in the manner described, and for the purpose specified.
2. The application of the rubbing-cylinder when constructed with fixed revolving rollers, as described, in combination with the concave of rollers *b*, as set forth.

A. G. HECKROTTE.

Witnesses:

JNO. BURNS,
WM. KEMBLE HALL.