

W. F. WILKINS.
Washing-Machine.

No. 202,391.

Patented April 16, 1878.

FIG. 1.

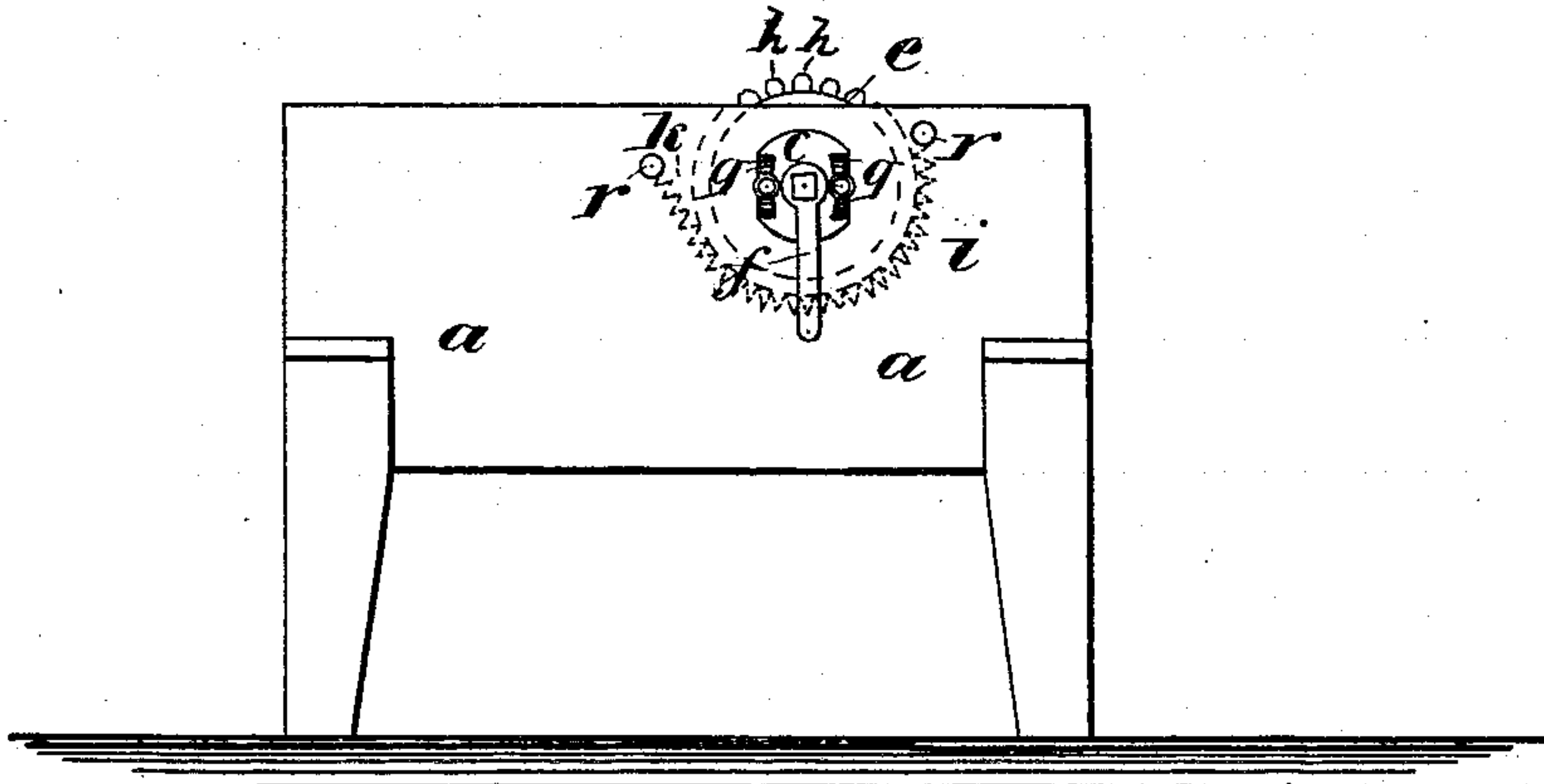


FIG. 2.

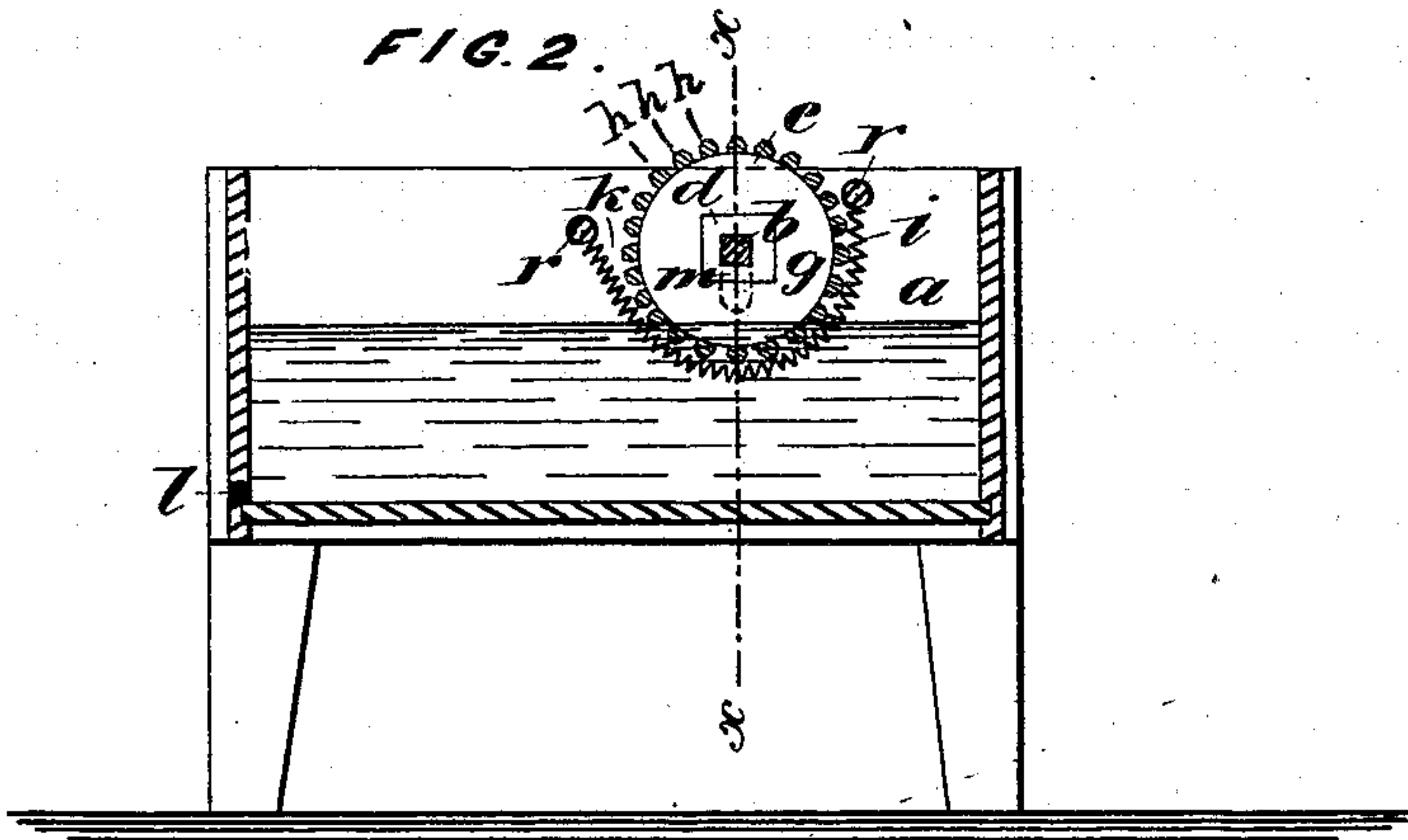


FIG. 3.

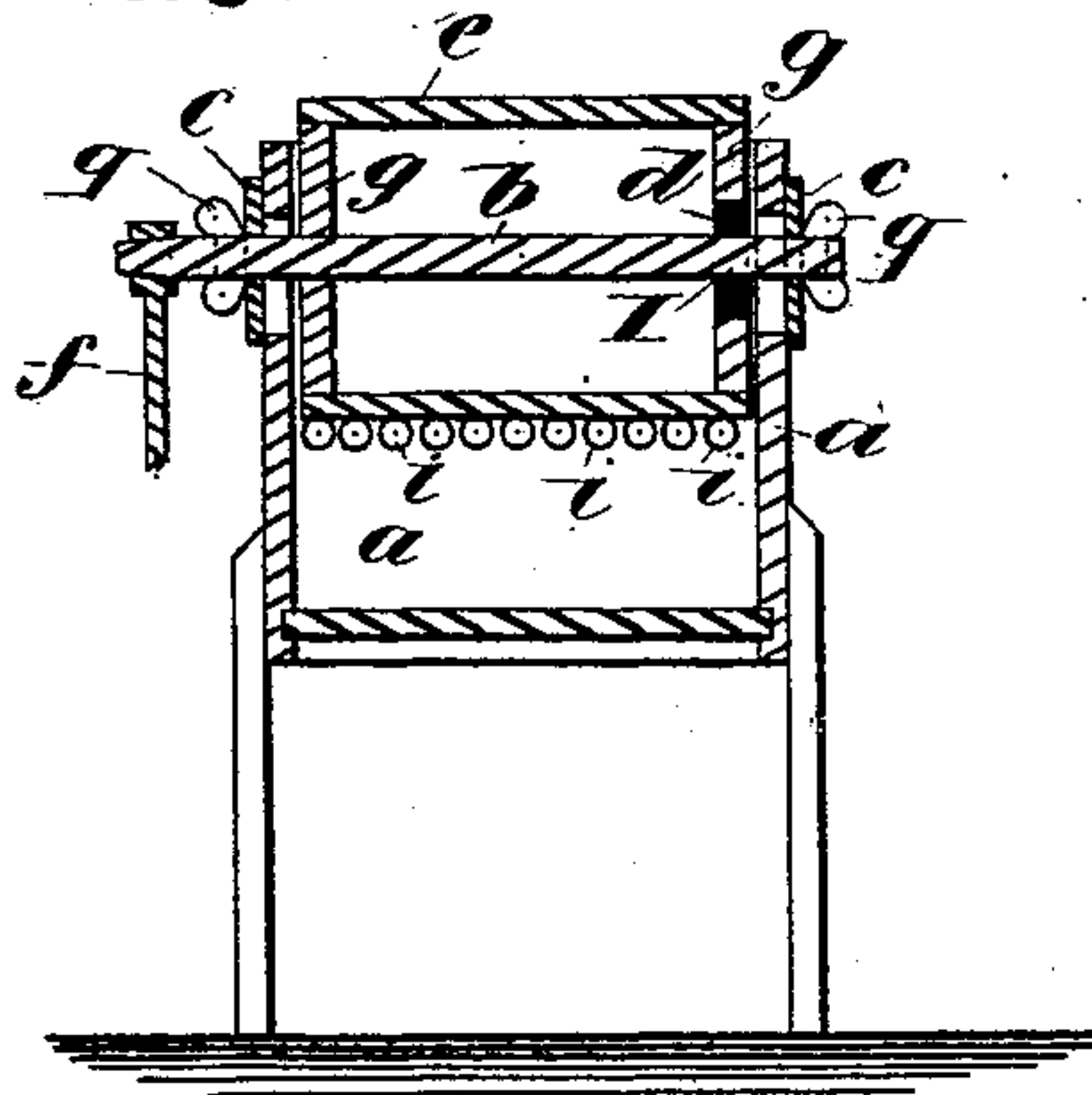
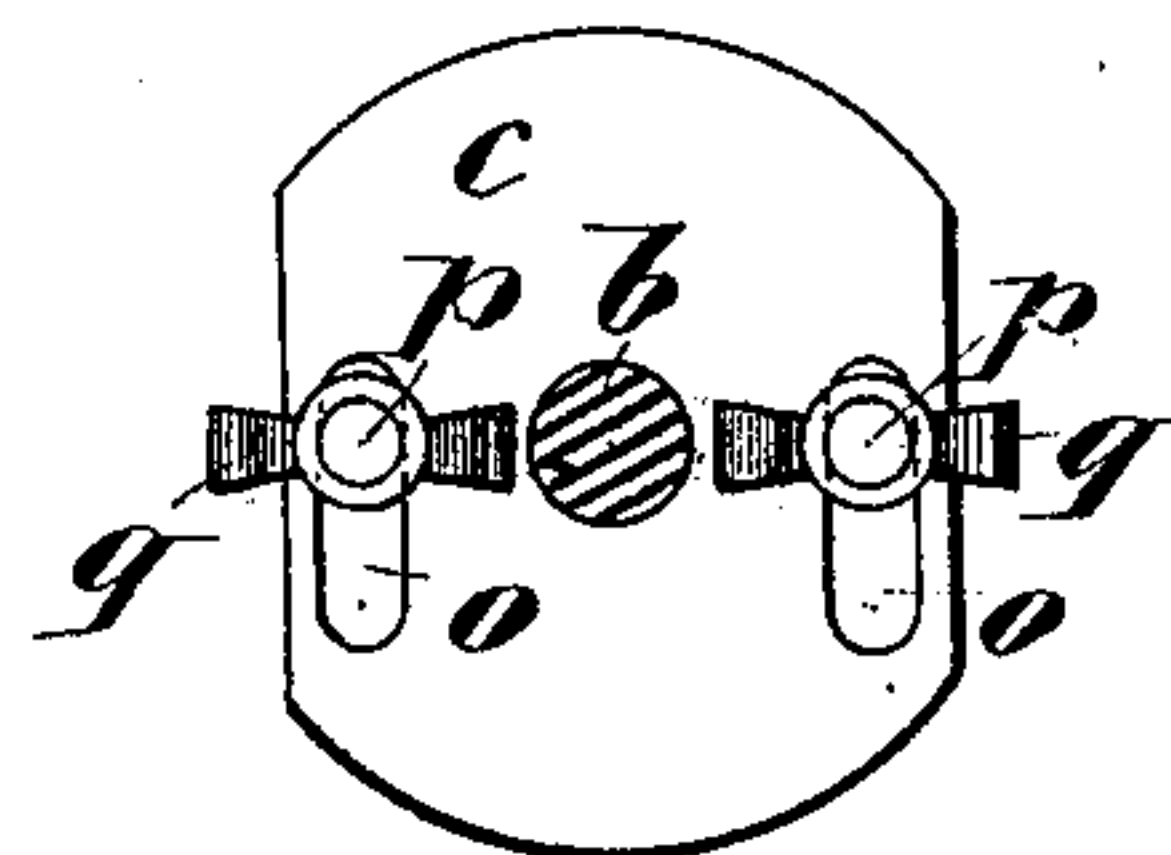


FIG. 4.



W. F. Wilkins
Inventor.

W. P. Ryan }
L. A. McDonell } Witnesses.

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FIG. 5.

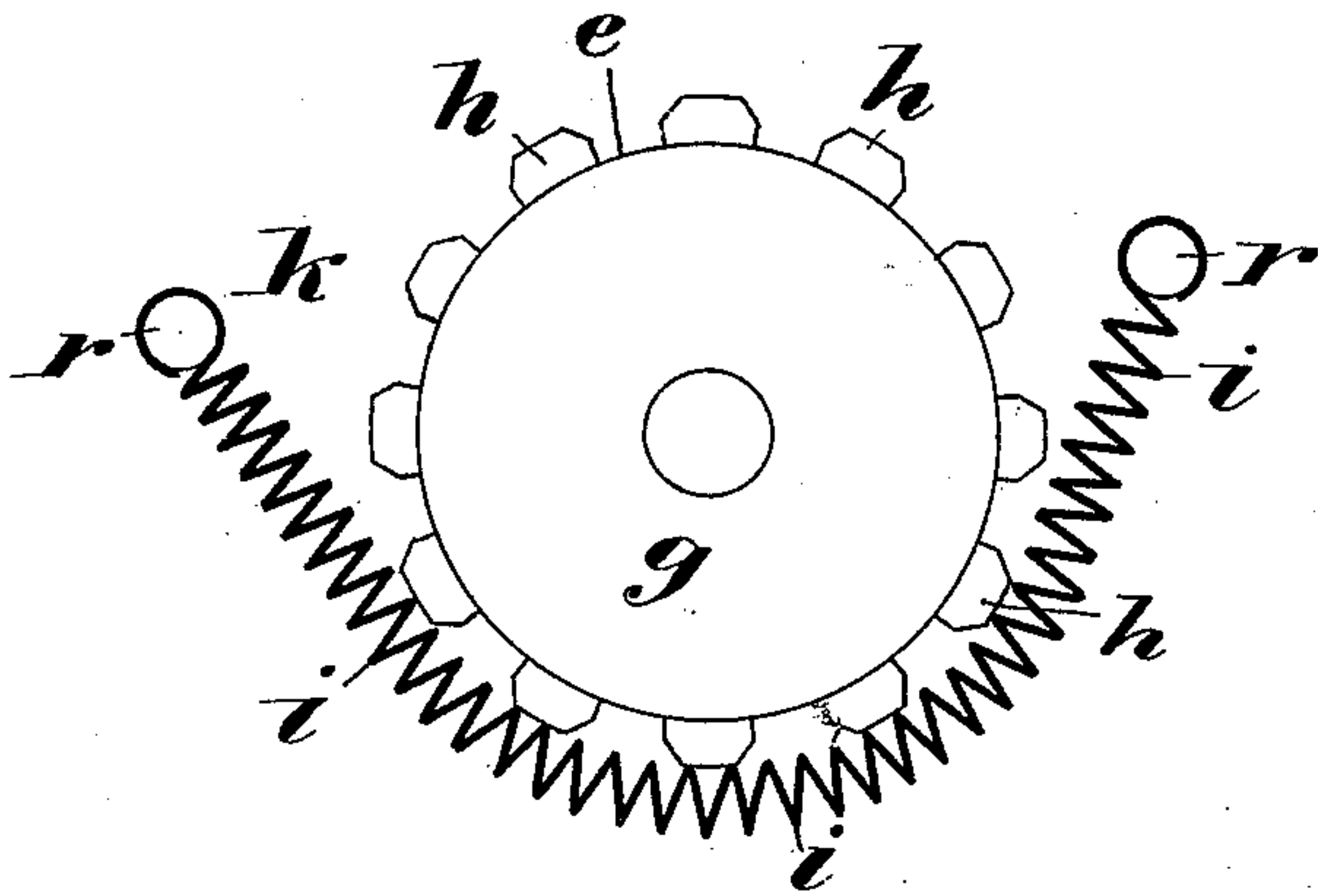
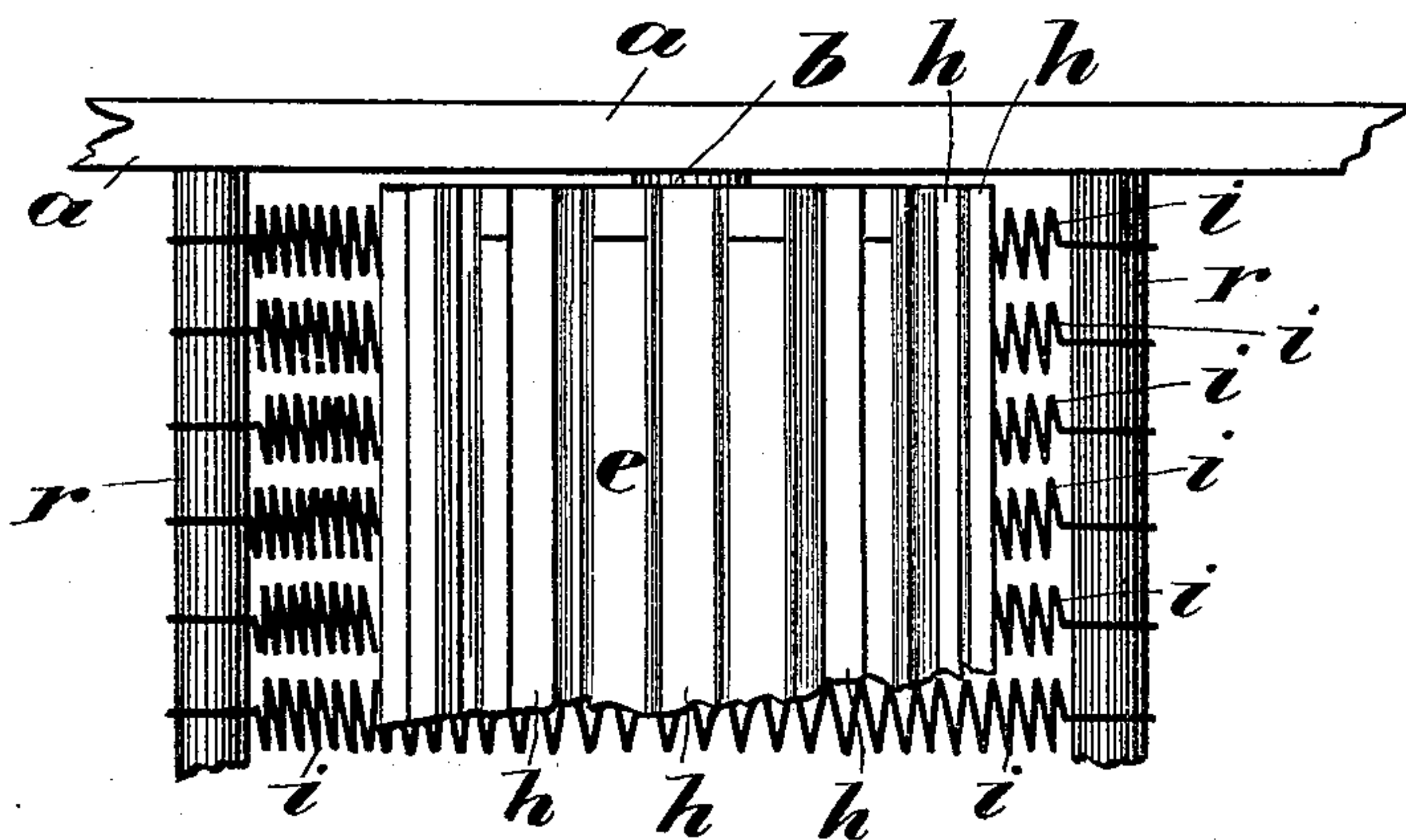


FIG. 6.



Witnesses.

W. P. Ryan
J. M. H. H. H.

W. F. Wilkins

Inventor.

UNITED STATES PATENT OFFICE.

WILLIAM F. WILKINS, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO JAMES THOMPSON SAWYER, OF SAME PLACE.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **202,391**, dated April 16, 1878; application filed December 1, 1877.

To all whom it may concern:

Be it known that I, WILLIAM FRANCIS WILKINS, of the city and district of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements on Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has reference to improvements in washing-machines; and consists of a series of non-corrosive wire springs drawn around a cylinder or drum underneath, covering about one-half of said drum, the ends of the springs being fastened to rounds passing through the sides of the box, leaving a space between the drum and the said rounds sufficient to allow the clothes to enter between the springs and the drum. The said box serves as a tub to hold the water. The springs at once form a rubbing and elastic bottom, the whole being a most perfect washing-machine.

By allowing the clothes to run entirely around the drum, they may be washed by a rotary motion; but if they are small articles they may be washed by a reciprocal motion. The great elasticity of the spring allows of large lumps or wads in the clothes to pass through the machine without the least difficulty.

In the drawings hereunto annexed similar letters of reference indicate like parts.

Figure 1 is a side elevation embodying my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section on line *xx*, Fig. 2. Fig. 4 is a detail of journal. Figs. 5 and 6 are details of rubbing-surface.

Letter *a* represents the box or tub, through the sides of which passes a spindle, *b*, supported in bearings *c*, the part *I* of said spindle being square, and passing through a plate, *d*, and the opening in this plate *d* being square also, which causes the drum or cylinder *e* and the spindle *b* to revolve together by the turning of the crank *f*.

The construction of the drum or cylinder is substantially as follows: I take two solid disks or heads, *g*, upon the periphery of which I fasten, in any ordinary manner, bars *h*. These bars *h* are placed a short distance apart, so as to form a corrugated surface. The non-corro-

sive springs *i* are drawn loosely around the said drum or cylinder *e*, and held in place by rounds or bars *r*, so that when clothes to be washed are placed in the opening or receptacle *k*, by the turning of the drum or cylinder *e* the corrugated surface draws them between the said drum and said springs, and by a reciprocal or rotary motion the clothes are rubbed and cleaned in a manner similar to that which is effected by the rubbing by hand on an ordinary wash-board.

Into the box or tub I put a sufficient amount of water to come about two or three inches above the bottom of the springs *i*, so that the clothes pass in and out of the water during the process of rubbing, which thoroughly cleans them. At one end of the box or tub is situated an outlet, *l*, for the water, when not required, to be drawn off.

In either side of the box or tub a slot, *m*, is situated, and through this slot and the bearings or plates *c* the spindle *b* passes. The said slots are for the purpose of regulating the pressure of the spring against the drum.

Two slots, *o*, are cut in the journals *c*, to allow the said journals to be raised or lowered with the drum or cylinder. Said journals are held in place by stationary bolts *p*. These bolts *p* are so placed as to go through the slots *o*, to allow the plates *c* to slide upon them, and are provided with thumb-screws *g* on their outer ends, for the purpose of securing the said plates at any desired position.

What I claim is as follows:

1. A rubbing-surface composed of spiral wire springs *i*, in combination with the revolving drum or cylinder *e*, constructed substantially as and for the purposes set forth.

2. The slotted plates *c*, bolts *p*, thumb-screws *g*, plate *d*, and spindle *b*, in combination with the tub *a*, having slotted sides, the spiral-spring rubbing-surface *i*, and cylinder or drum *e*, substantially as and for the purposes set forth.

Montreal, November 28, A. D. 1877.

W. F. WILKINS.

Witnesses:

W. P. RYAN,
L. A. McDONELL.