

(No Model.)

S. TURNBACH.  
WASHING MACHINE.

No. 390,724.

Patented Oct. 9, 1888.

Fig. 1.

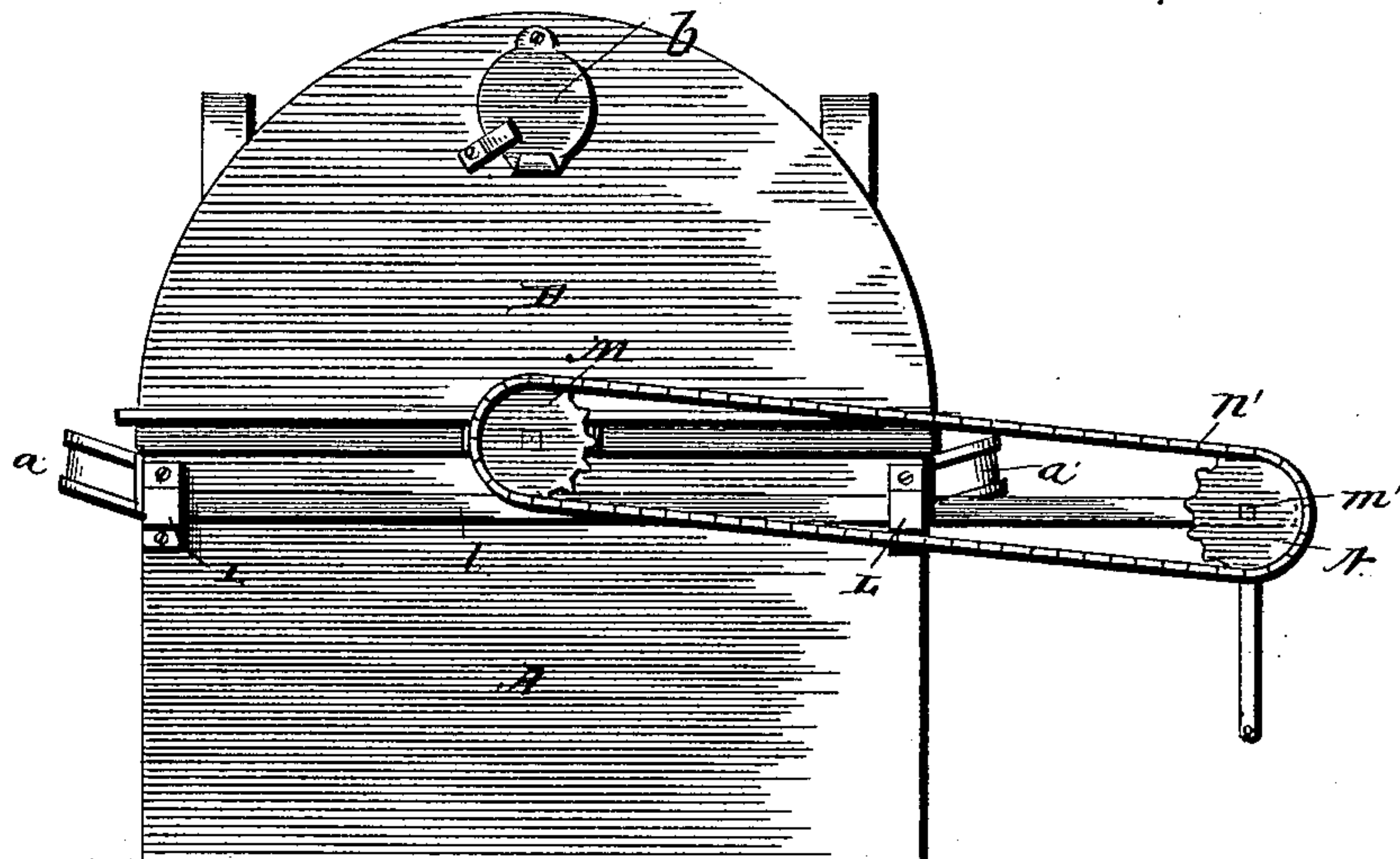


Fig. 2.

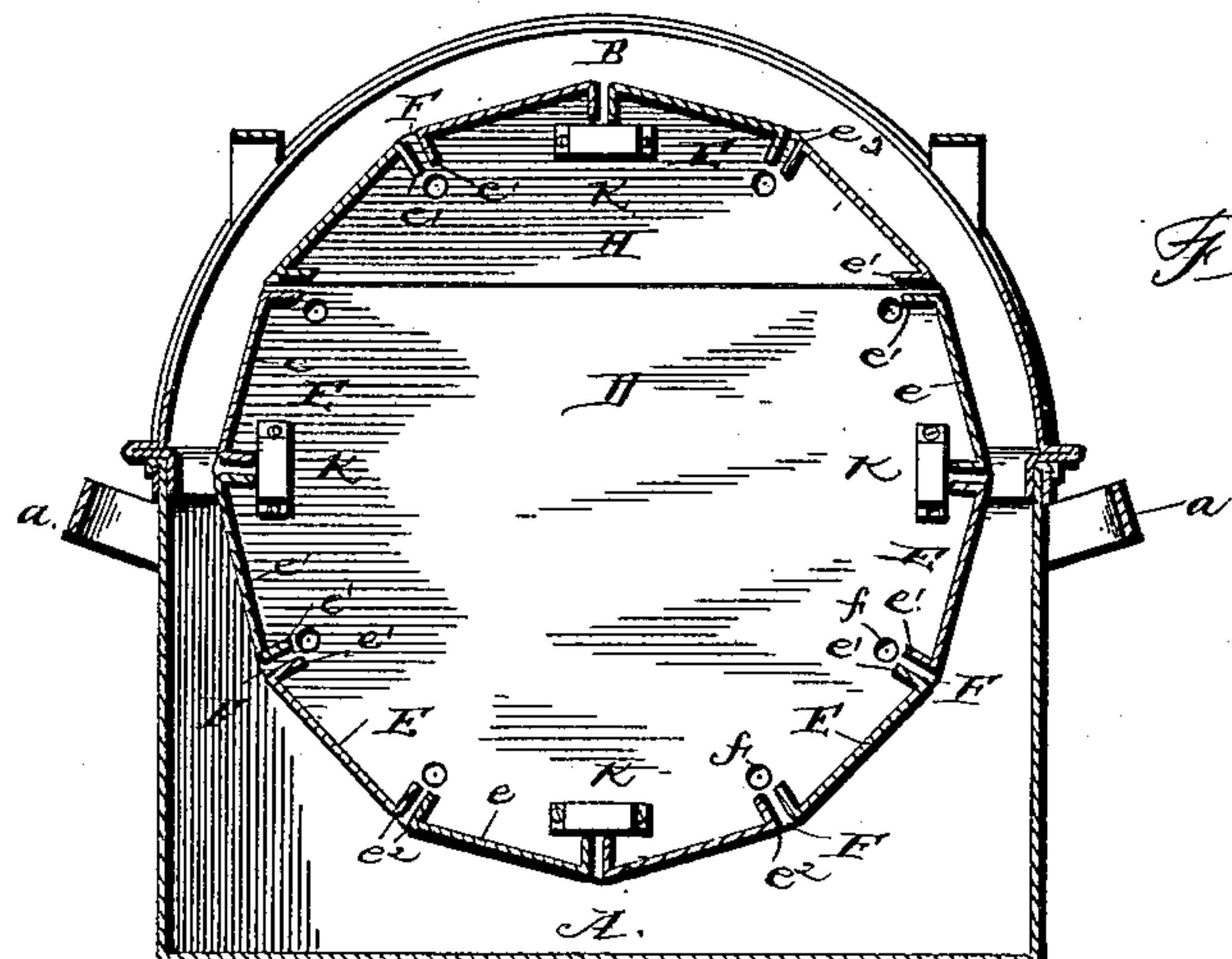


Fig. 4.

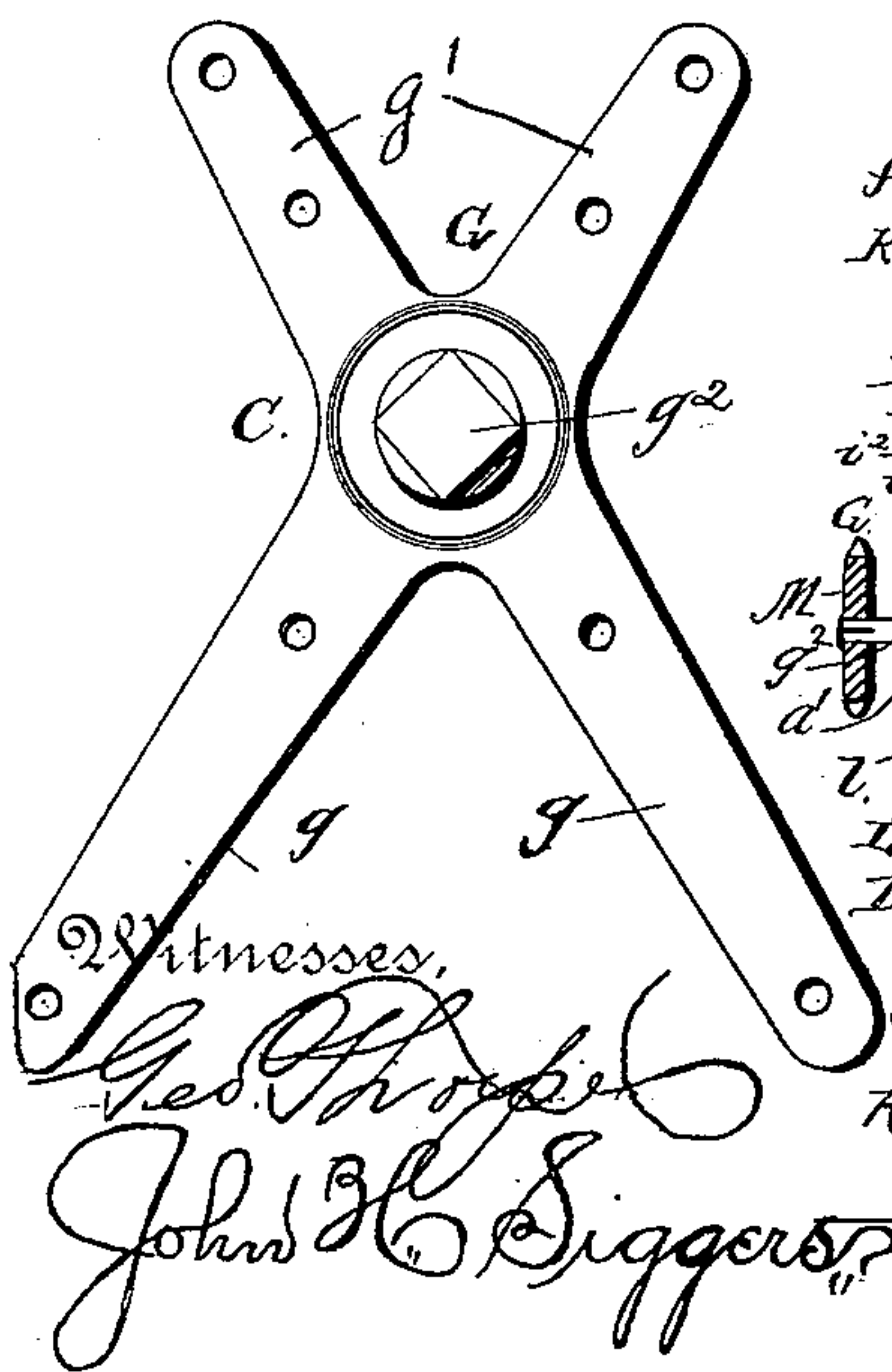


Fig. 3.

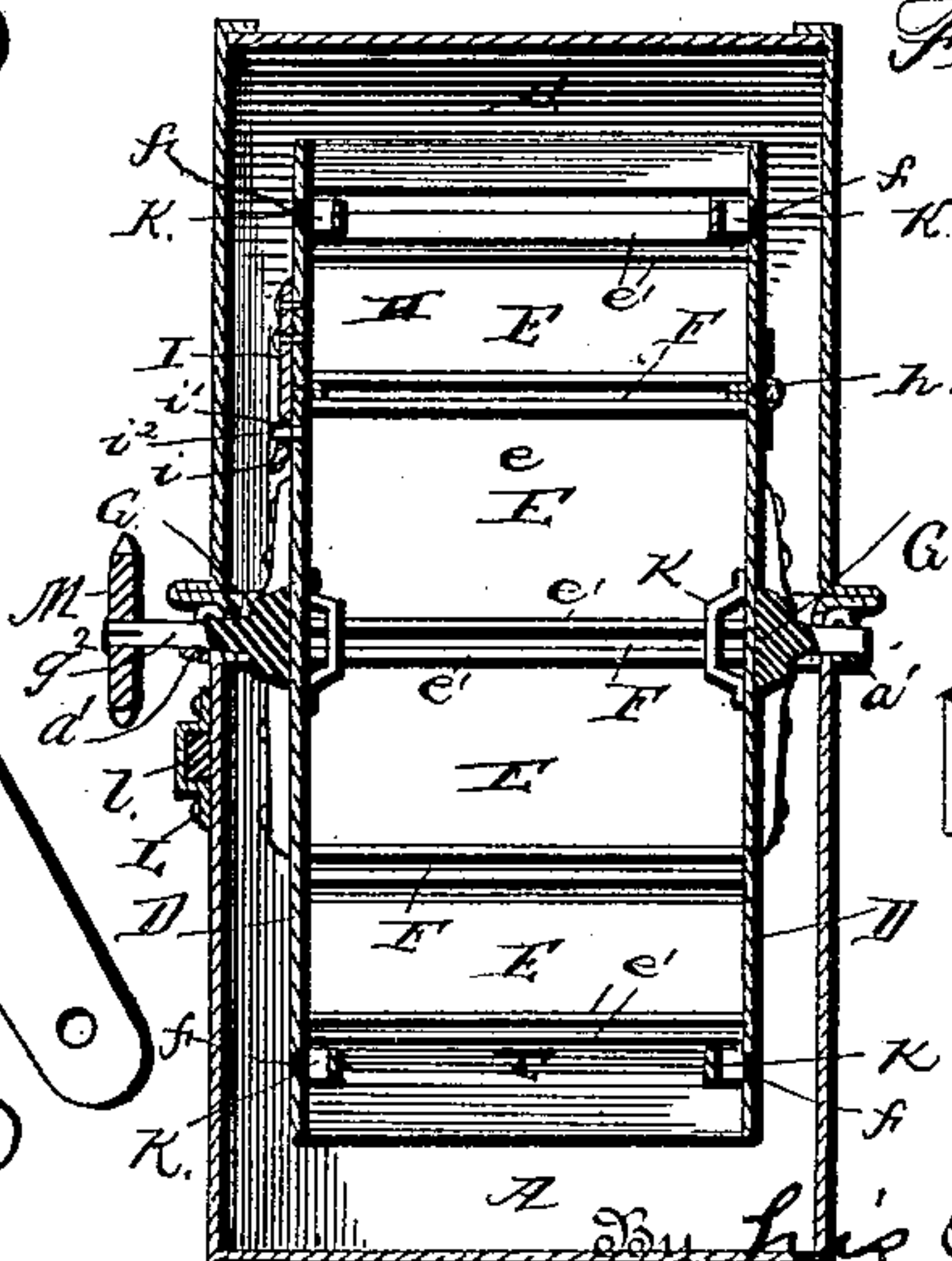
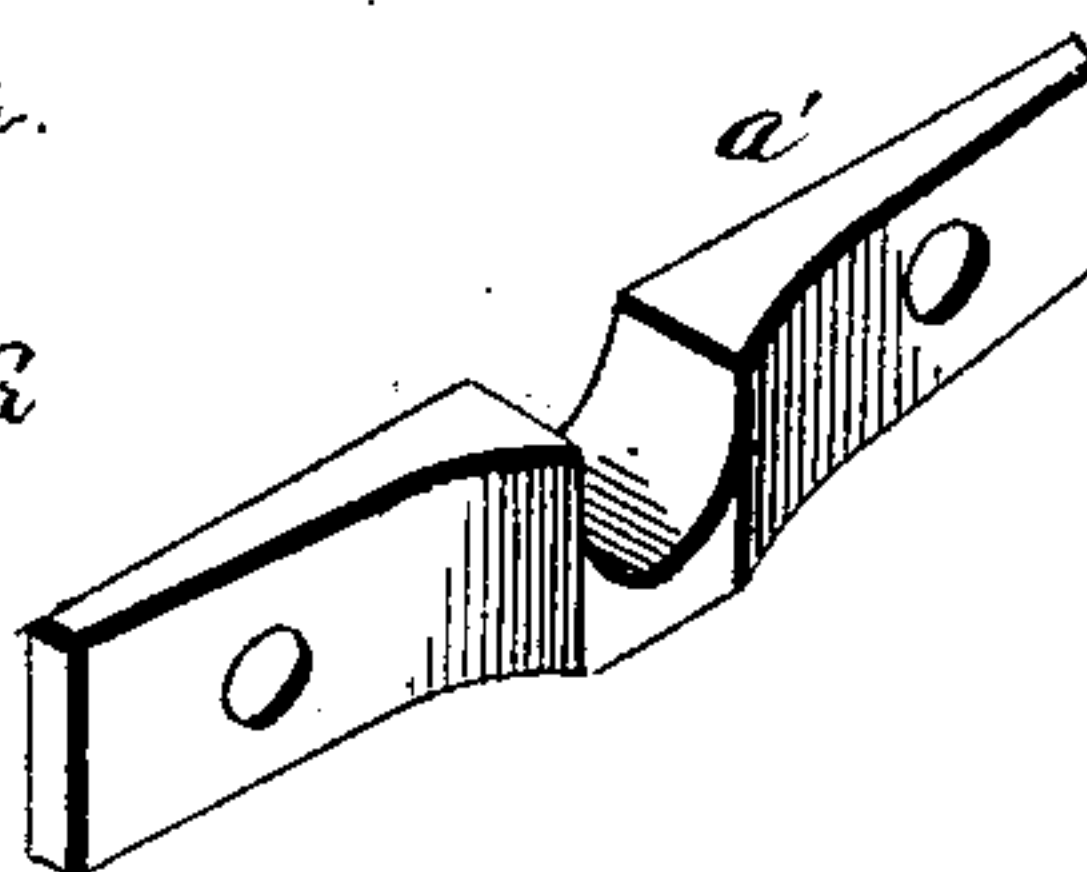


Fig. 5.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

SAMUEL TURNBACH, OF BLOOMSBURG, PENNSYLVANIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 390,724, dated October 9, 1888.

Application filed January 13, 1888. Serial No. 260,613. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL TURNBACH, a citizen of the United States, residing at Bloomsburg, in the county of Columbia and State of Pennsylvania, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

The invention relates to improvements in washing-machines; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side elevation of the machine. Fig. 2 is a vertical longitudinal section of the machine. Fig. 3 is a vertical transverse section thereof. Figs. 4 and 5 are detail views of the same.

Referring to the drawings by letter, A designates the rectangular suds-box, of sheet-copper, and having at the ends the hand-holds *aa* and at the center of the upper edges of its sides the bearing-brackets *a' a'*, which are riveted to the sides of the suds-box and are preferably of malleable iron.

B is the semi-cylindrical cover of the suds-box, having the pivoted and swinging door *b* on one side near its top for the escape of steam.

C is the cylinder, consisting of the two side plates, D D, each of which has the contour of a regular polygon of twelve sides, (a dodecagon,) and the transverse buckets E, twelve in number. The said buckets connect the opposite edges of the side plates, and are each composed of a flat peripheral portion, *e*, and the two similar and equal radial inwardly-standing flanges *e' e'*, connected to the peripheral portions by the rounded corners *e<sup>2</sup> e<sup>2</sup>*.

Between the flanges *e'* of adjacent buckets are the transverse water-ways F, and radially inward from each water-way on each side is an opening, *f*, which openings are consequently equidistant, and are equally distant from the centers of the sides.

G G are two four-armed spindles, each having the two adjacent long arms *g* and the intermediate short arms, *g'*, which arms are riveted to the side plates. The said spiders have the journals *g<sup>2</sup>* made integrally upon them,

which journals turn in the bearings of the brackets *a'*. The sides are sectioned opposite the short arms *g'*; the section including four of the buckets and forming the door H, which is hinged on one side at *h* and has the leaf-spring catch I secured to the other side. The said catch has the rounded free end *i* and the opening *i'* inward from said end. The said opening engages the pin *i<sup>2</sup>* on the corresponding side and holds the door closed. The cylinder is made of plate-tin. Over every third opening, *f*, on each side is a beater, K, which consists of a bent strip of metal with its convexity inward, as shown.

In operation the transverse edges of the cylinder between the buckets agitate the water in the suds-box and draw it into the water-ways F, the openings *f f* thereabove permitting it to escape and allowing the upper part of the cylinder to be filled with steam. The beaters K strike the clothes and knock them inward as the cylinder rotates. They thus form an essential feature of the machine.

The device is simple, cheap, durable, and effective, and from the manner in which the parts are connected cannot get out of repair.

L L are bails or loops, of metal, secured to one side of the suds-box, and *l* is a bar with one end supported in said loops, as shown. On the same side of the machine as the bar the journal *g<sup>2</sup>* is extended, and has secured upon it a pulley or sprocket-wheel, M, a similar pulley or wheel, N, being secured to one end of a short shaft, *m'*, journaled in the outer end of the bar *l*, and having in its other end a crank-handle. The two pulleys or wheels are connected by a band or chain, *n'*, so that the suds-box can be set on the stove and the water therein can be kept boiling while the washing is being performed. Thus the operator can avoid coming unpleasantly near the fire and can keep the boiler turning without any discomfort.

Having described my invention, I claim—

In a washing-machine, the combination, with the suds-box provided upon one of its sides with loops, and a rotating cylinder suitably journaled in the suds-box and having one of its journals provided with a sprocket-wheel, of a

detachable bar adapted to be removed from  
the machine when not in use, and provided at  
its outer end with a sprocket-wheel and suit-  
able means for turning it, said bar extending  
5 out a considerable distance beyond the suds-  
box to enable the machine to be operated away  
from the stove, as specified.

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

SAMUEL TURNBACH.

Witnesses:

H. D. EDGAR,  
S. W. F. HARTMAN.