

(No Model.)

G. M. PURSELL.  
Washing Machine.

No. 235,168.

Patented Dec. 7, 1880.

Fig. 1.

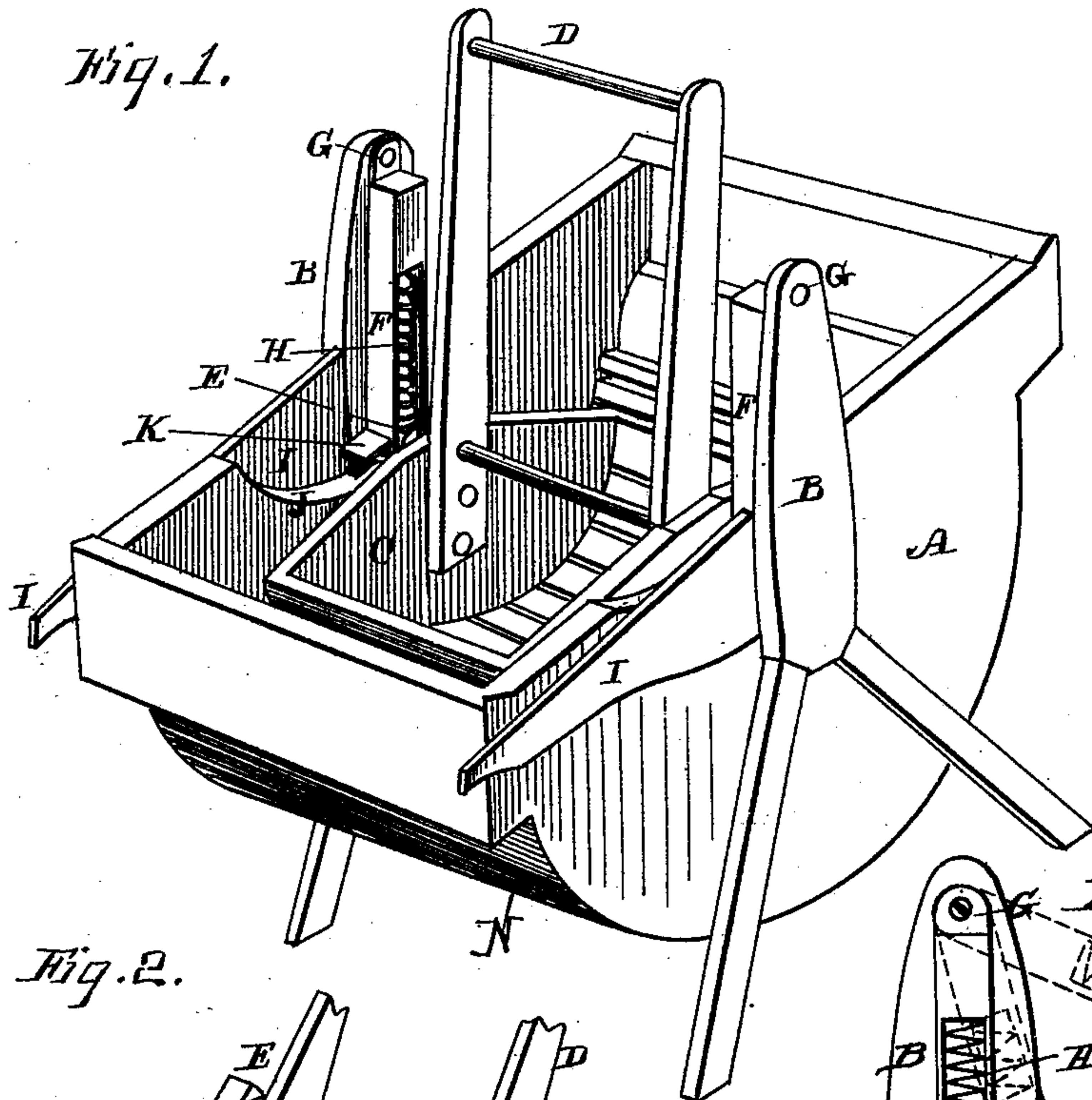


Fig. 2.

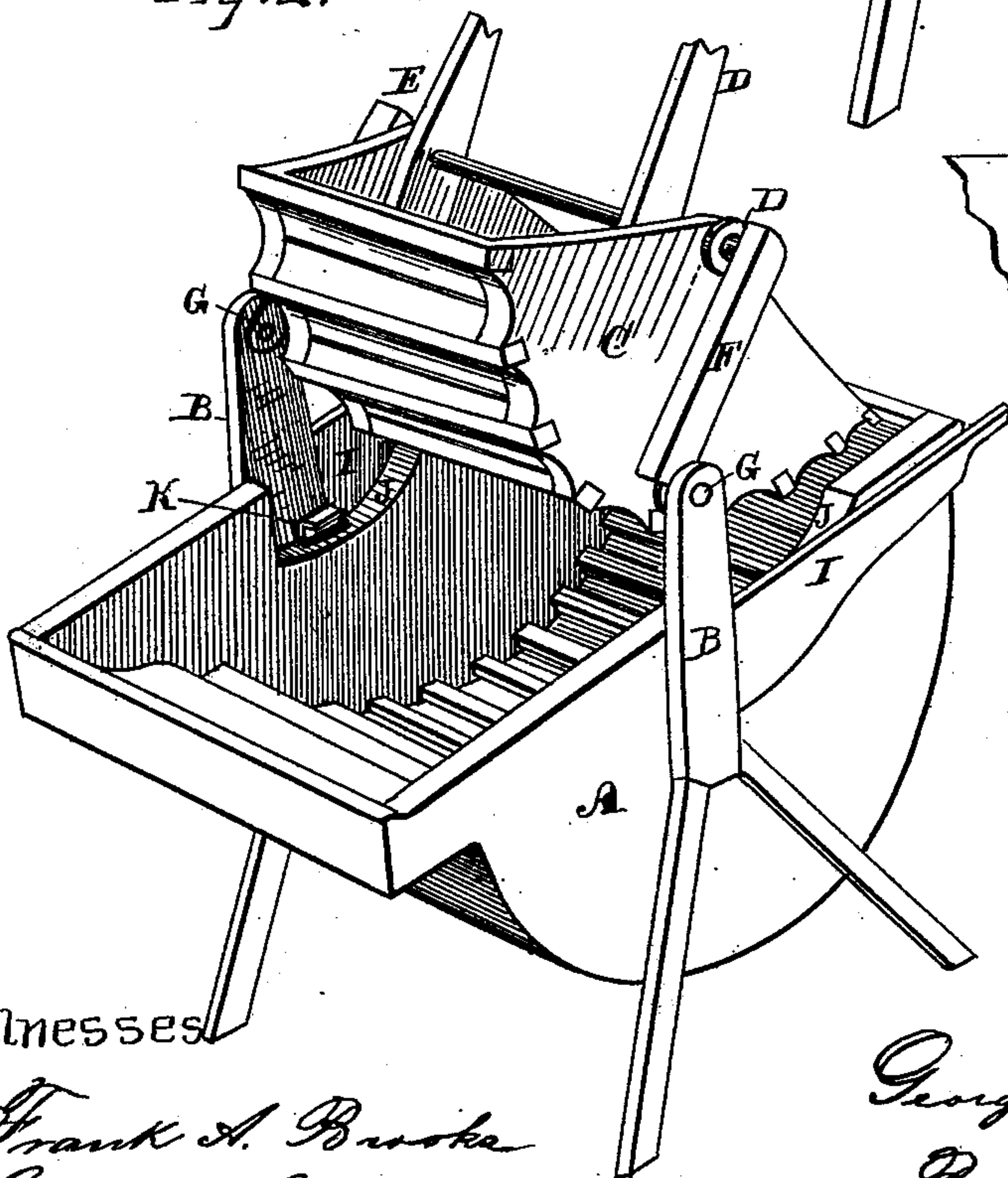


Fig. 3.

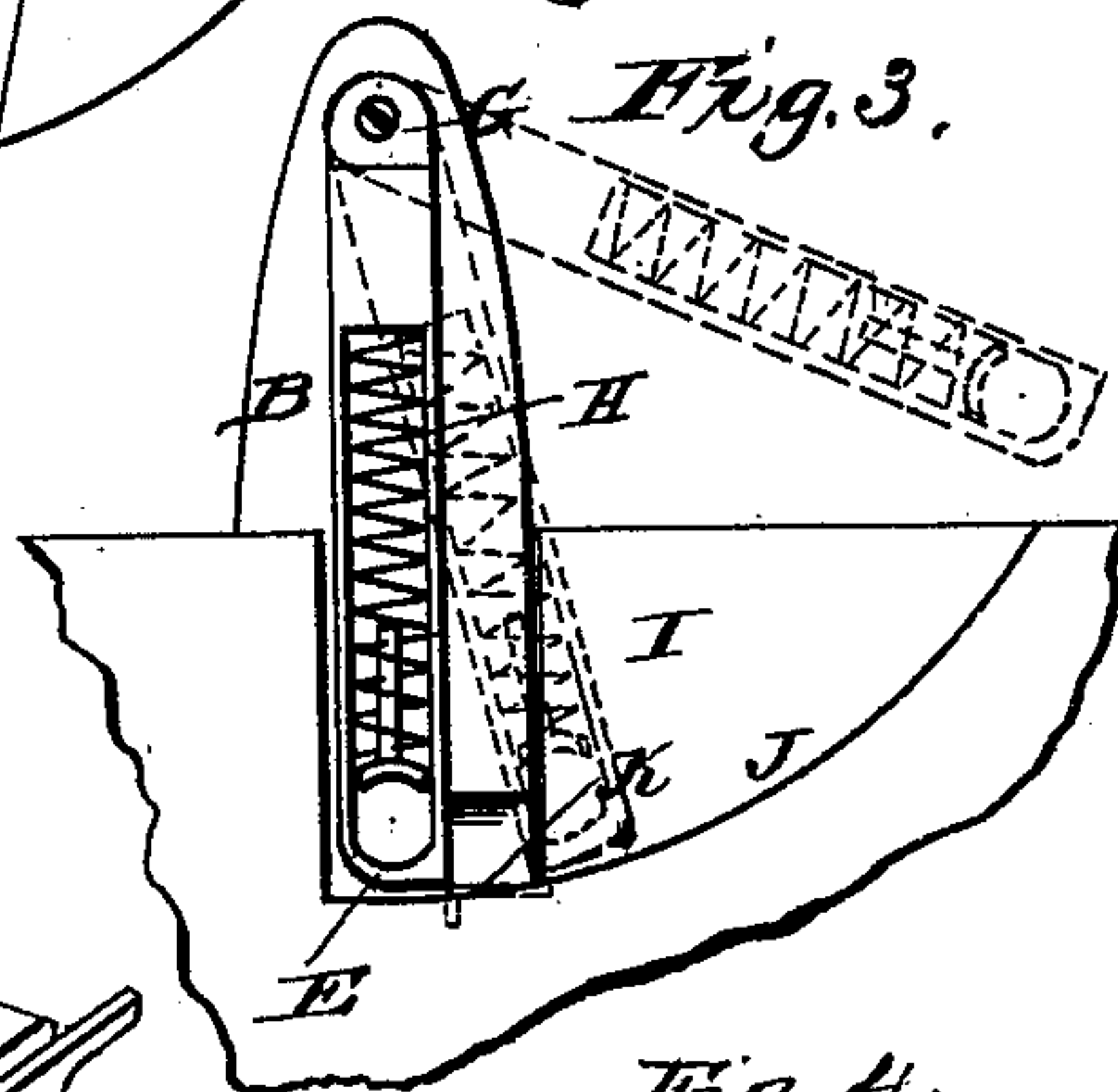
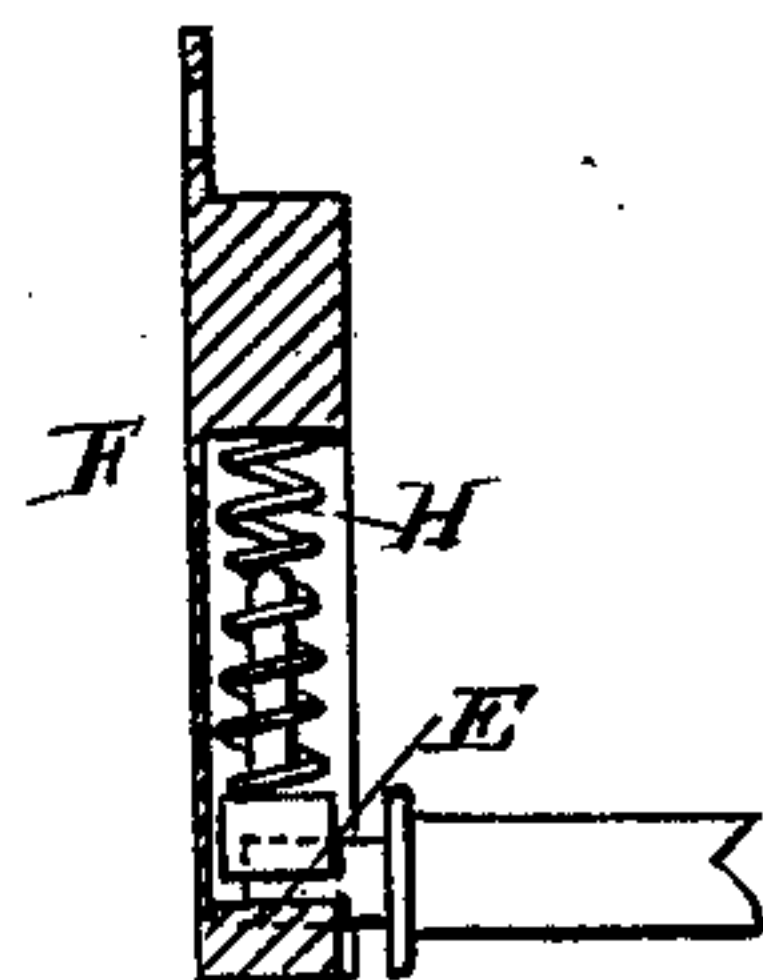


Fig. 4.



Witnesses

Frank A. Brooks  
Geo. N. Strong.

Inventor

George M. Purcell  
By Devey & Co  
attys



# UNITED STATES PATENT OFFICE.

GEORGE M. PURSELL, OF SAN JOSÉ, CALIFORNIA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 235,168, dated December 7, 1880.

Application filed March 8, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE M. PURSELL, of San José, county of Santa Clara, and State of California, have invented an Improved Washing-Machine; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in that class of washing-machines which consists of a semi-cylindrical containing body and a similarly-shaped rubber, which is adapted to be oscillated or rotated about an axis, so that the clothes may be rubbed between the corrugated surfaces of the two.

My invention consists in the combination and arrangement of certain details of construction, as hereinafter more fully described and claimed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my machine with the rubber in position for work. Fig. 2 is a view showing the rubber turned out of the tank upon the swinging journals. Fig. 3 is a view showing a side elevation of the tank-standards and the swinging supporting-arms with their spring-bearings. Fig. 4 is a section through the guides F.

A is the body, containing tank or tub, provided with a sheet-metal bottom, N, and is made in the form of a short semi-cylinder, and is mounted upon legs in the manner usual to this class of machines. Standards B are secured to the sides of this tub and project upward, so as to support the oscillating rubber C. This rubber is made of the same shape as the interior of the tub, but its dimensions are enough less to allow it to be oscillated about its axis within the tub by means of the handle D, these parts of my machine not differing materially from other machines of this class.

The ends of the axis about which the rubber turns are supported by boxes E, which slide in elongated guide-supports or boxes F. These guides are pivoted to the standards B at some distance above the point where the axis of the rubber is journaled within them,

so that the whole of the rubber may be turned out of the tub about these pivots G when desired.

The guide-supports F are adapted to contain spiral or other springs, H, which press upon the boxes E, and thus hold them down to their work; but when the guides F are swung outward with the rubber the springs allow the journals of the axis to move up in the guide-supports, and thus permit the rubber to be easily removed. They also allow the rubber to adjust itself to any inequalities which may occur by reason of irregular masses of clothing which lie beneath it, and they always keep it down to its work, whatever these irregularities may be. The guide-supports F are locked in position by spring-stops K, which are secured to arms I, and which yield and allow the swinging guide-supports F to pass beyond them, (see Fig. 3,) the said springs being pushed down, where it is necessary to turn the rubber out of the tank, as seen in Fig. 2.

The side of the tub is cut away in a curve, as shown at J, to allow the guides F and axis of the rubber to swing out of the tub when necessary. The lever-arms I are therefore made broad enough at this point to cover this space J and cause the top of the tub to present a level surface, and it also prevents water from being splashed out at this point.

In the formation of the corrugated surfaces in the bottom of the tub and upon the rubber various devices have been employed. When wooden bars have been used they must, to be effective, be separated widely enough to enable them to take a good hold upon the clothes. This sometimes allows the clothes to pass through the spaces and to clog the machine; and in order to remedy this, and at the same time to provide the necessary space between the projecting bars to give the proper rubbing action, these bars have been formed with a groove or depression cut in the center, leaving the projection upon the outer edges. The objection to this form is that the dirt from the clothes will settle into these grooves in the

bottom bars, and must be cleaned out at intervals.

Having thus described my invention, what I claim as new, and desire to secure by Letters  
5 Patent, is—

In a washing-machine, the standard B, rubber C, and swinging supporting-arms provided with yielding journal-boxes E, in com-

bination with spring-stops K, to hold the swinging supports in place, as described. 10

In witness whereof I have hereunto set my hand.

GEORGE M. PURSELL.

Witnesses:

S. H. NOURSE,

FRANK A. BROOKS.