

(No Model.)

2 Sheets—Sheet 1.

J. A. VANDERVOORT.

WASHING MACHINE.

No. 280,973.

Patented July 10, 1883.

Fig. 1.

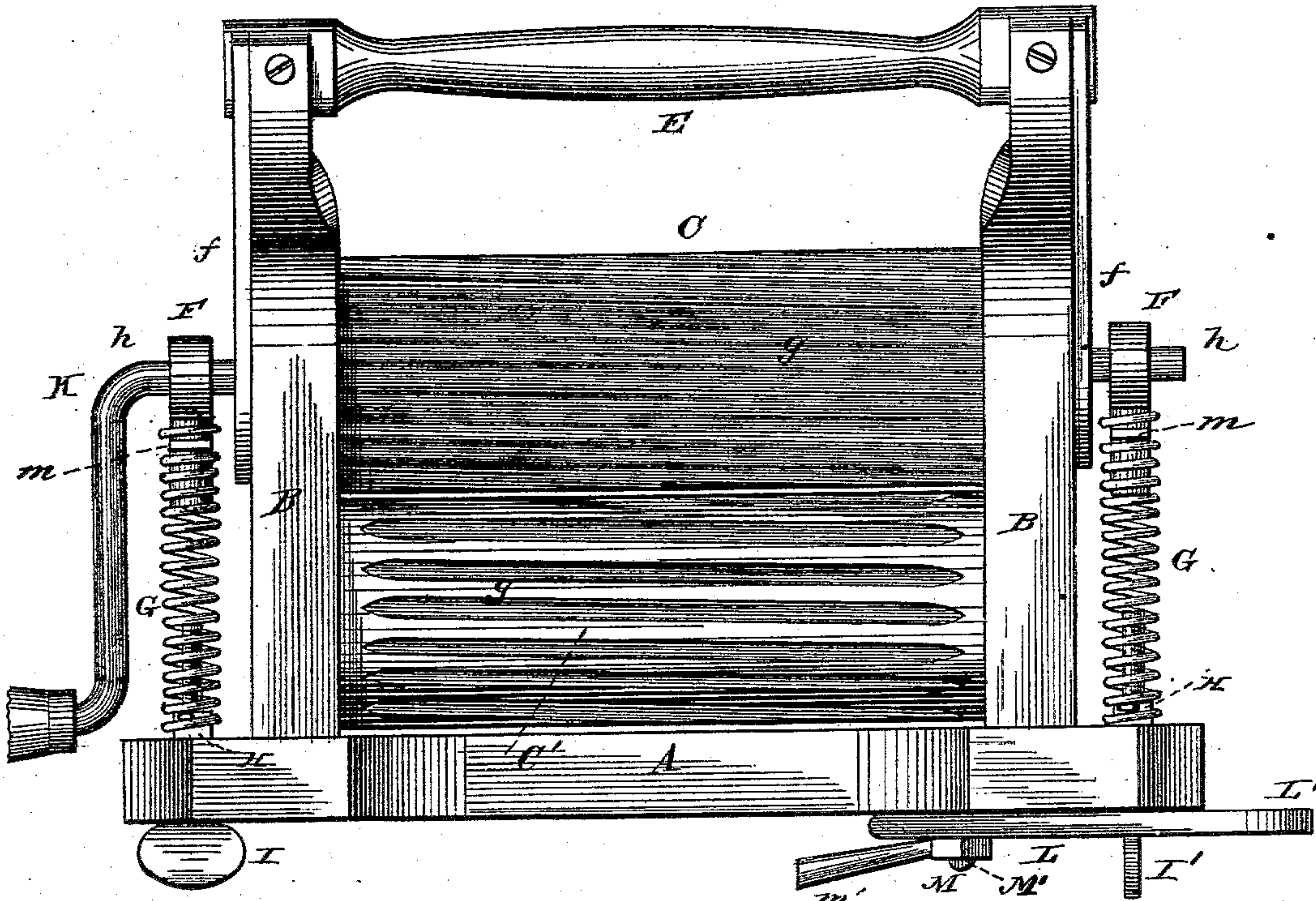


Fig. 2.

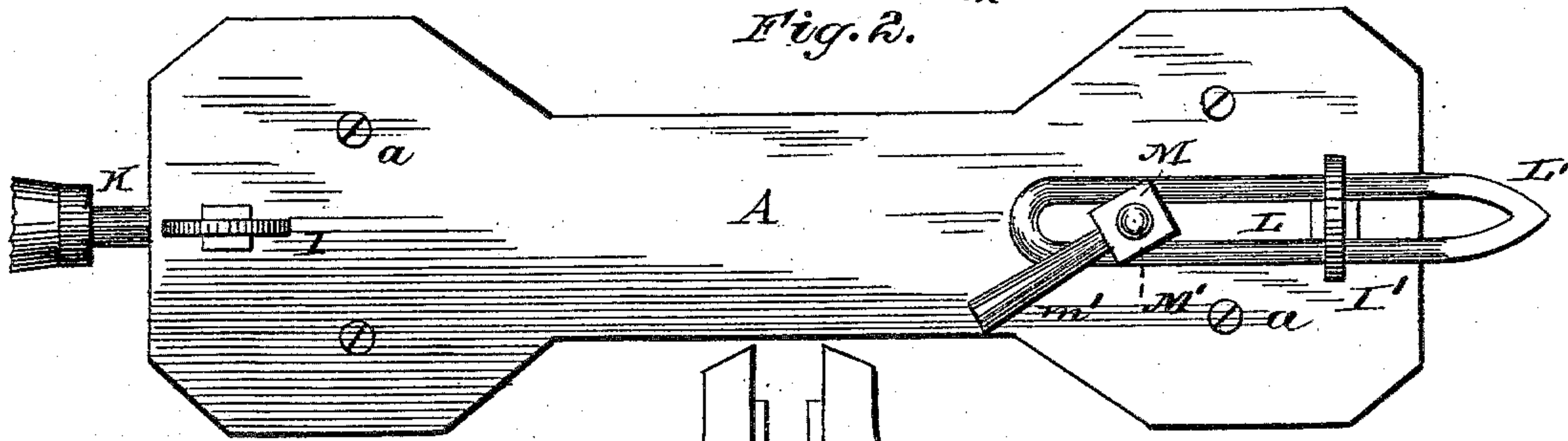
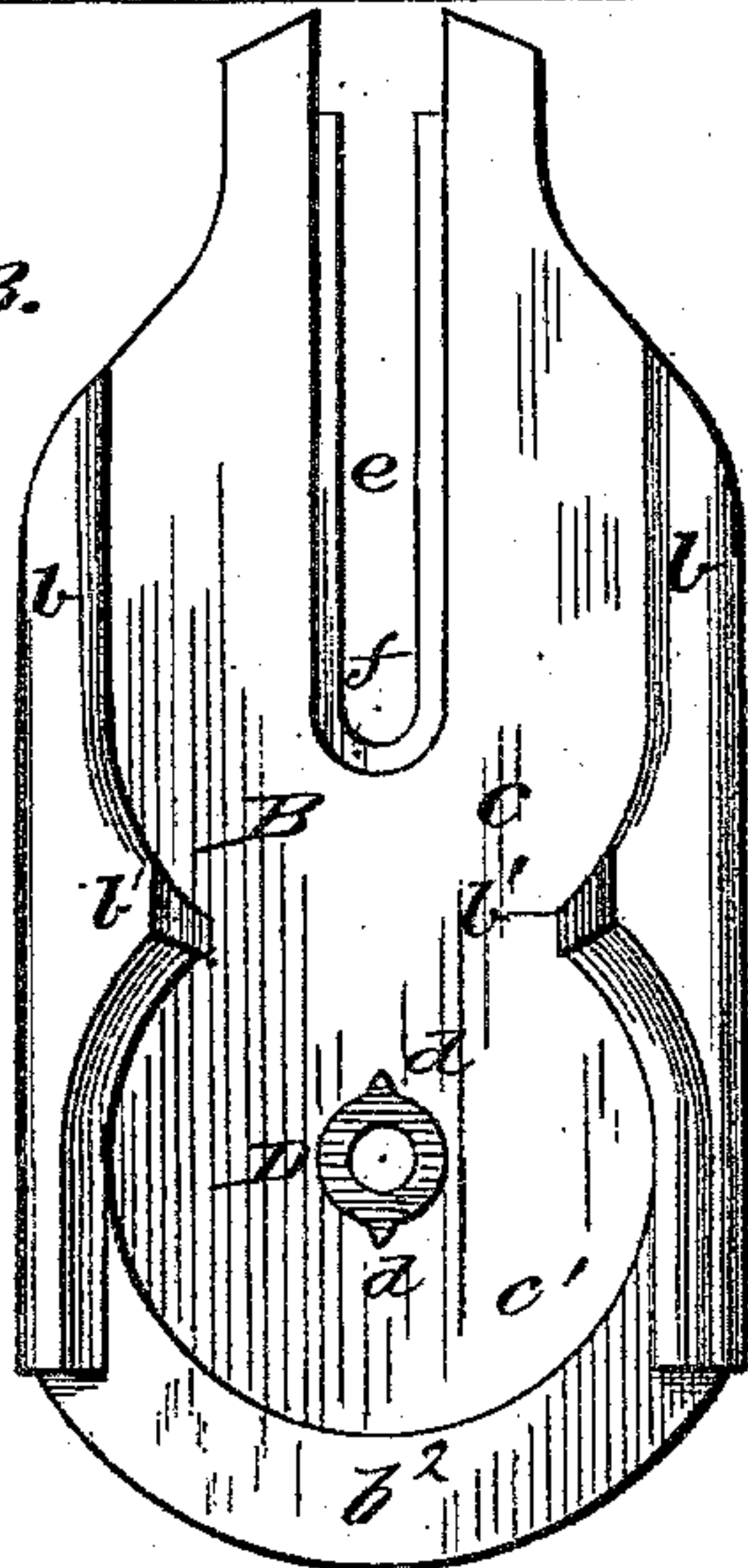


Fig. 3.



WITNESSES

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(No Model.)

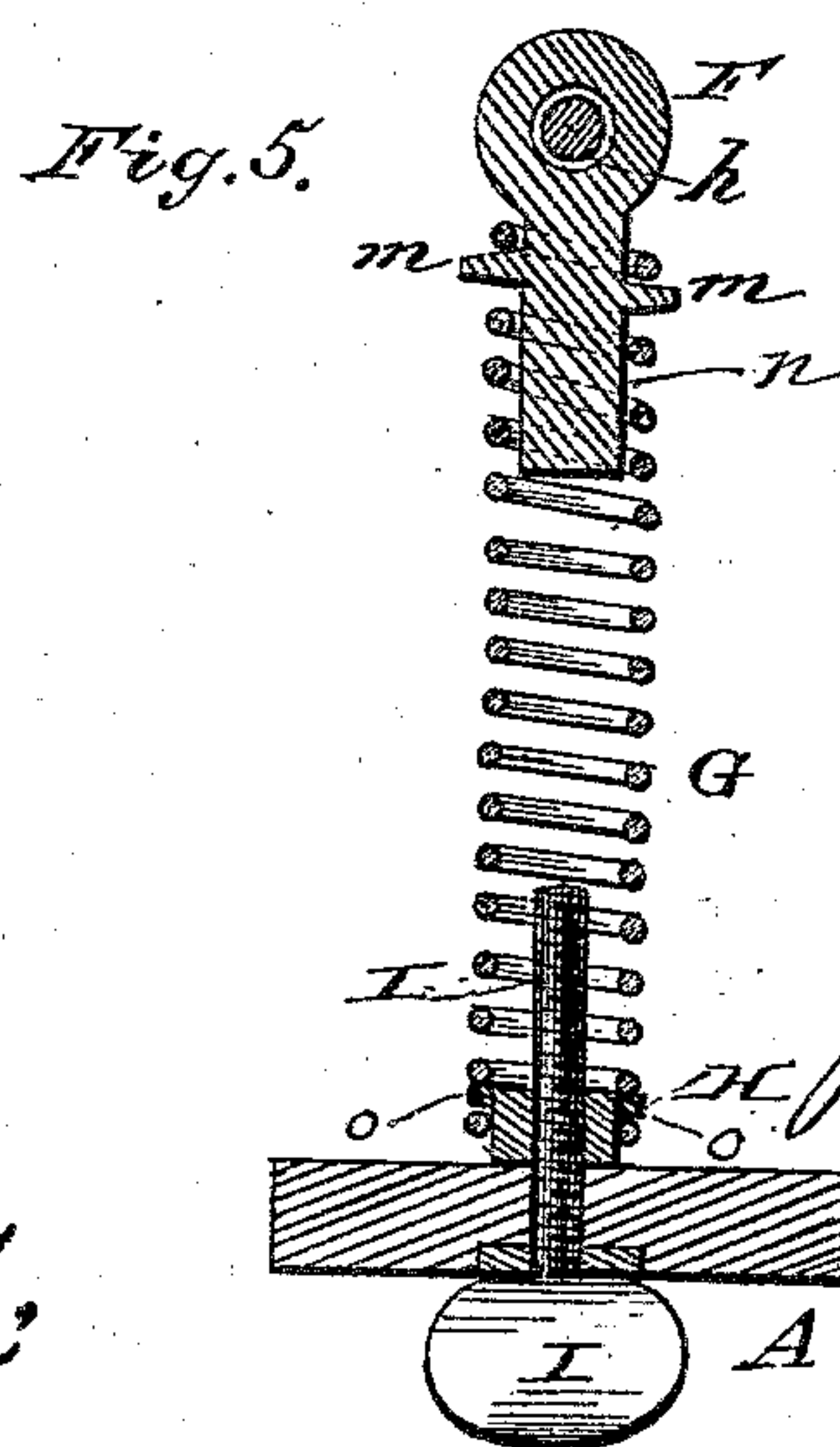
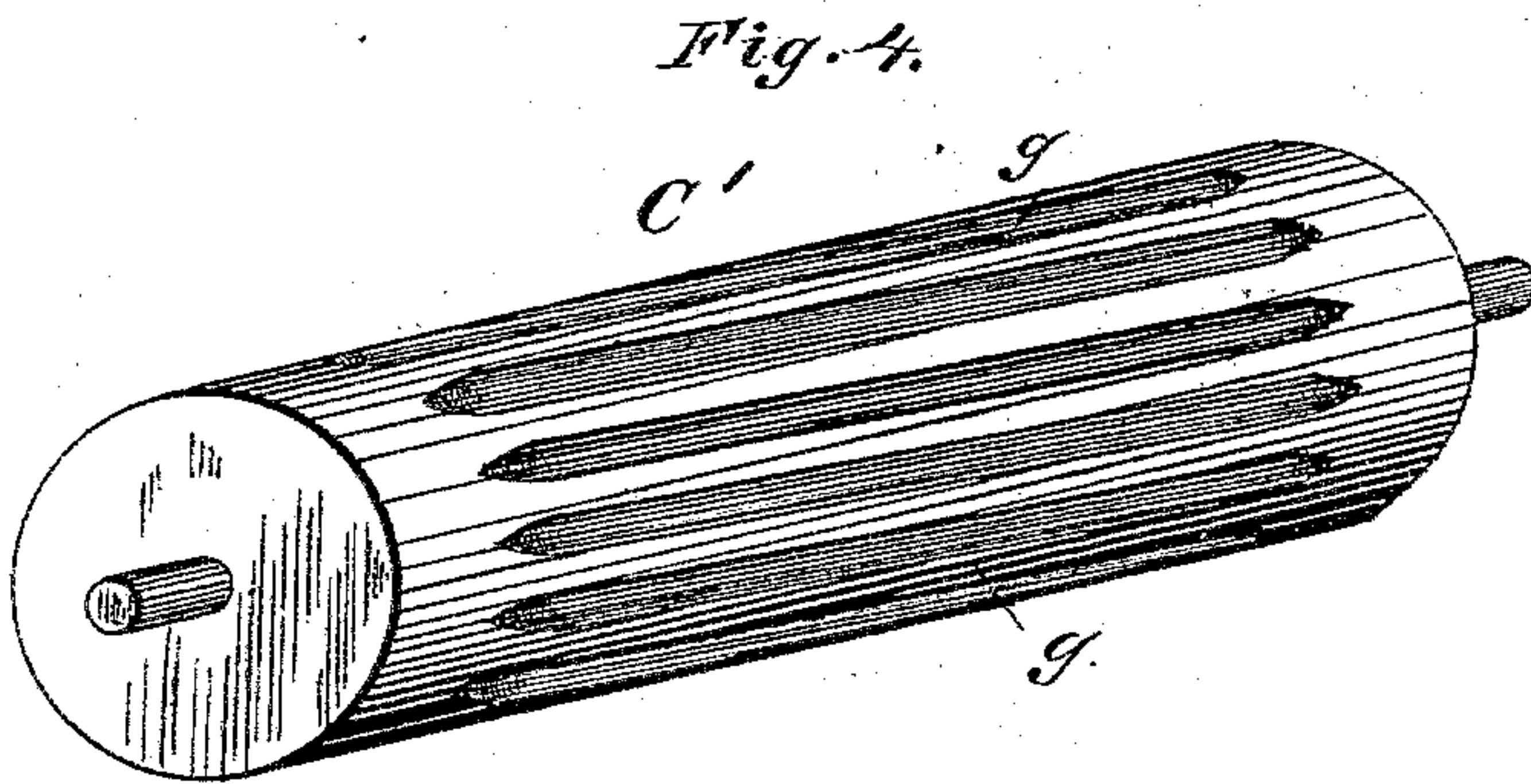
J. A. VANDERVOORT.

2 Sheets—Sheet 2.

WASHING MACHINE.

No. 280,973.

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WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN A. VANDERVOORT, OF CLARKSVILLE, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 280,973, dated July 10, 1883.

Application filed November 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. VANDERVOORT, of Clarksville, in the county of Clinton and State of Ohio, have invented certain new and useful
5 Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference
10 being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved washing-machine. Fig. 2 is a bottom view of the same. Fig. 3 is an inside view of one of the
15 side pieces of the machine. Fig. 4 is a perspective view of the bottom roller detached; and Fig. 5 is a vertical section through one of the end springs, with its roller-bearing and tightening device.

20 Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to roller washing-machines, and contemplates certain improvements in the construction of the roller-carrying frame of the same, as will be hereinafter
25 more fully described, and particularly pointed out in the claims.

In the accompanying drawings, A indicates the bed-piece of the machine, the top of which
30 is recessed at opposite sides to receive the lower curved ends, b^2 , (see Fig. 3,) of the side pieces, B B, which are securely fastened in the bed-piece by screws $a a$. The said side pieces, B B, are countersunk on their inner sides or
35 faces to form recessed portions c and c' , which receive the ends of the top and bottom rollers, C and C', respectively. The projecting parts $b b$, which form the sides of these recesses, follow the circle of the rollers near their points
40 of contact, forming projections $b' b'$, which reach in between the rollers, thus covering the ends of the rollers and preventing the clothes which are washed on the machine from being drawn in between the ends of the rollers and the sides
45 of the frame, and from being torn or damaged in this manner. The bottom roller, C', is journaled in metallic boxes D, which are sunk into the wood of the side pieces, and prevented from turning by projecting spurs $d d$. (See Fig. 3.)
50 The upper roller, C, plays in a vertical slot, e , in each of the side pieces, which are faced with end irons, f , to prevent undue wear.

E is the top piece or cross-brace, which connects the sides, and at the same time forms a convenient handle for carrying the machine. 55

The rollers C and C' are by preference about fourteen inches in length, with a diameter of about four inches. They are made with spiral grooves g ; but these grooves do not extend from end to end, but stop within half an inch of either
60 end, leaving the extreme ends of the rollers solid and circular in shape. I prefer to make both the rollers of this construction; but, if desired, either one of them may be grooved from end to end, but one only. It is also important
65 that the rollers should be grooved or fluted in such a manner that the grooves of one will cross those of the other, and not run parallel or mesh therewith. In other words, the spiral of the grooves on C and C' must run in opposite di-
70 rections. The journals $h h$ of the upper roller are inserted through bearings or boxes F F. These boxes have downward-projecting stems $n n$, provided with projections $m m$, forming
75 part of the thread of a screw, which engage between the spirals of the springs G G, holding them fast. The lower ends of the springs G G are attached in like manner to nuts H H, having projections $o o$, which also form part of a
80 screw-thread and engage the lower spirals of the springs. Through these nuts are inserted thumb-screws I and I', passing through the bottom plate, A. It follows that by tightening these screws the tension of the bearing-springs
85 G G may be adjusted so as to regulate at will the pressure of the upper roller, while at the same time the springs permit the upper roller to yield or give when bulky articles of clothing pass between the rollers, thus obviating all
90 danger of breakage from that source.

Upon the under side of the bed-piece A, at one end thereof, is a slotted slide, L, which terminates in a point, L', and is held in place by the thumb-piece of thumb-screw I' at the same end of the bed-piece. This slide may be pushed
95 forward or back, so as to engage with the side of the tub within which the machine is placed, and thus hold it firmly in position during the operation of washing. The slide L is tightened down in its adjusted position upon the bed-
100 piece by a jam-nut, M, upon a screw, M', and having a projecting handle, m' . By this means the washer may be made to fit any size tub.

It will be seen that the clothes to be washed

on this machine are not subject to the danger which they are subject to in most machines of this class of being torn in slipping in between the ends of the rollers and the end pieces of the frame, as the ends are perfectly protected by the projecting pieces *b b'* and *b b'*, following the curves of the ends of the rollers.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a roller washing-machine, the end pieces, B, having lower curved ends, *b²*, and projecting sides *b*, following the curvature of the rollers, forming lips *b'*, extending in between

the rollers, substantially as and for the purpose shown and set forth.

2. In a roller washing-machine, the combination of the end pieces, B, having projecting curved sides *b b'*, with the rollers *g g*, provided with tension-springs G, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN A. VANDERVOORT.

Witnesses:

MATTIE SMITH,
RACHEL J. SMITH.