

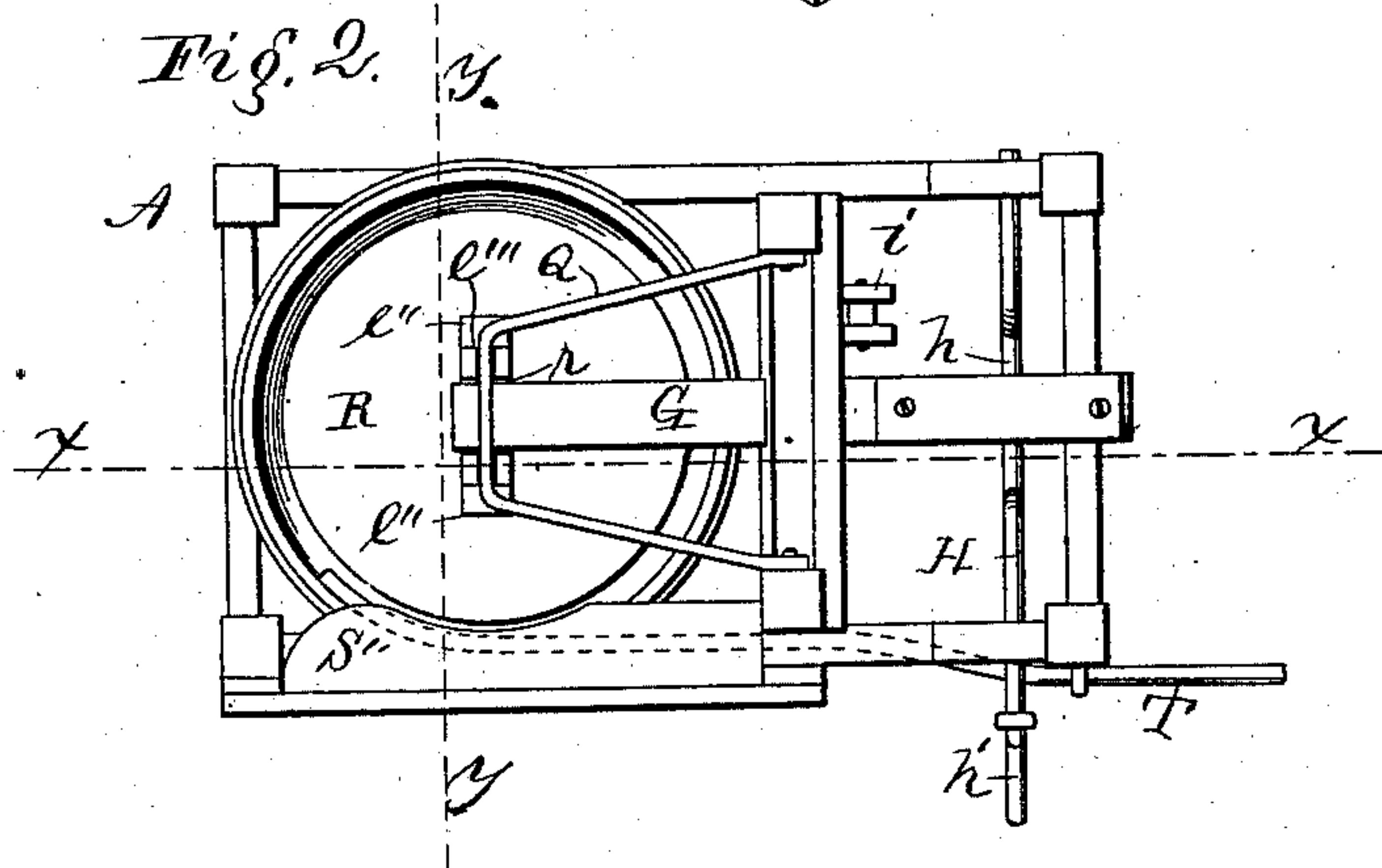
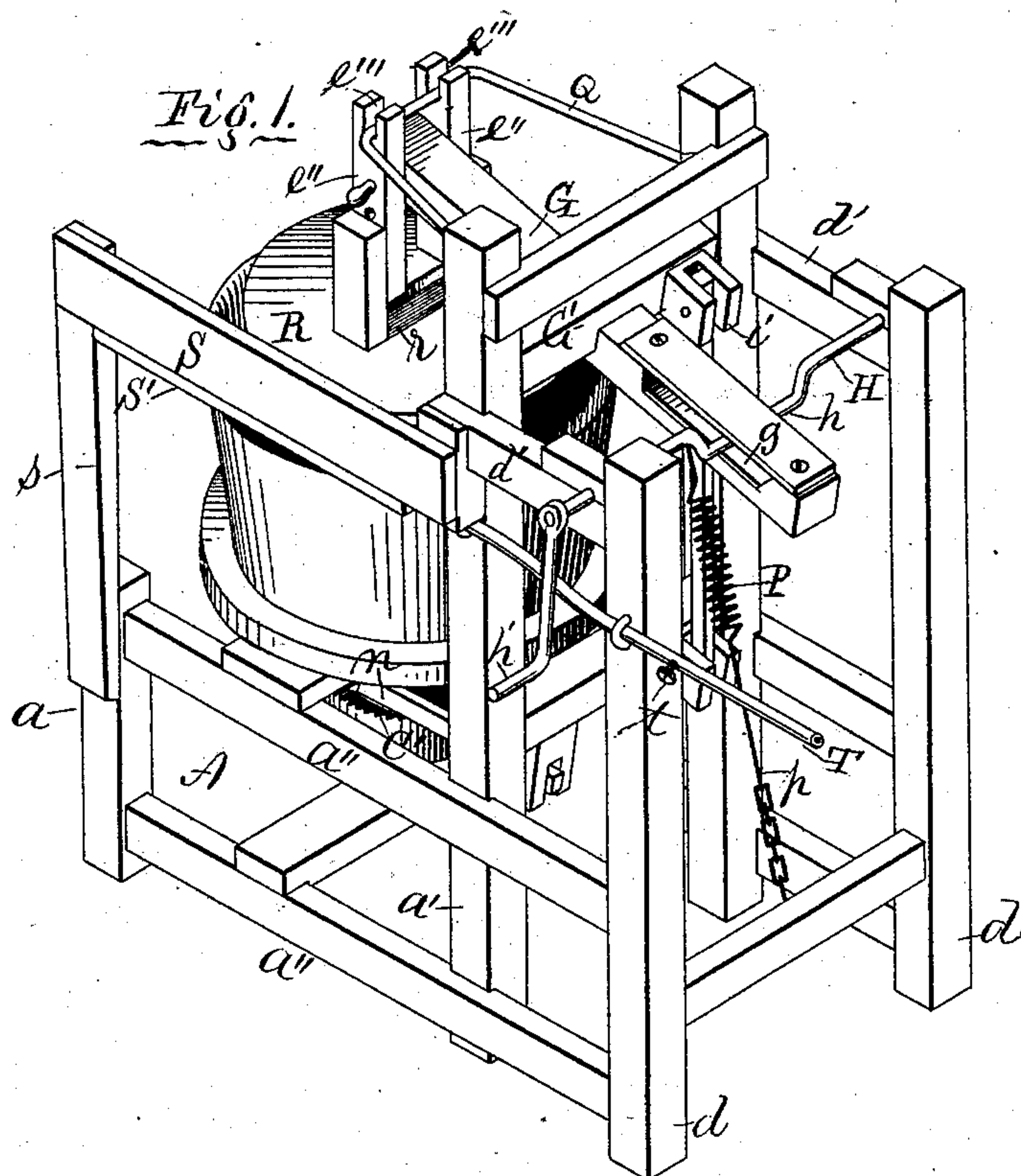
(No Model.)

2 Sheets—Sheet 1.

J. B. PETTIT.  
WASHING MACHINE.

No. 316,821.

Patented Apr. 28, 1885.



WITNESSES

M. H. Barringer  
H. M. Richards.

INVENTOR

John B. Pettit,  
By W. B. Richards  
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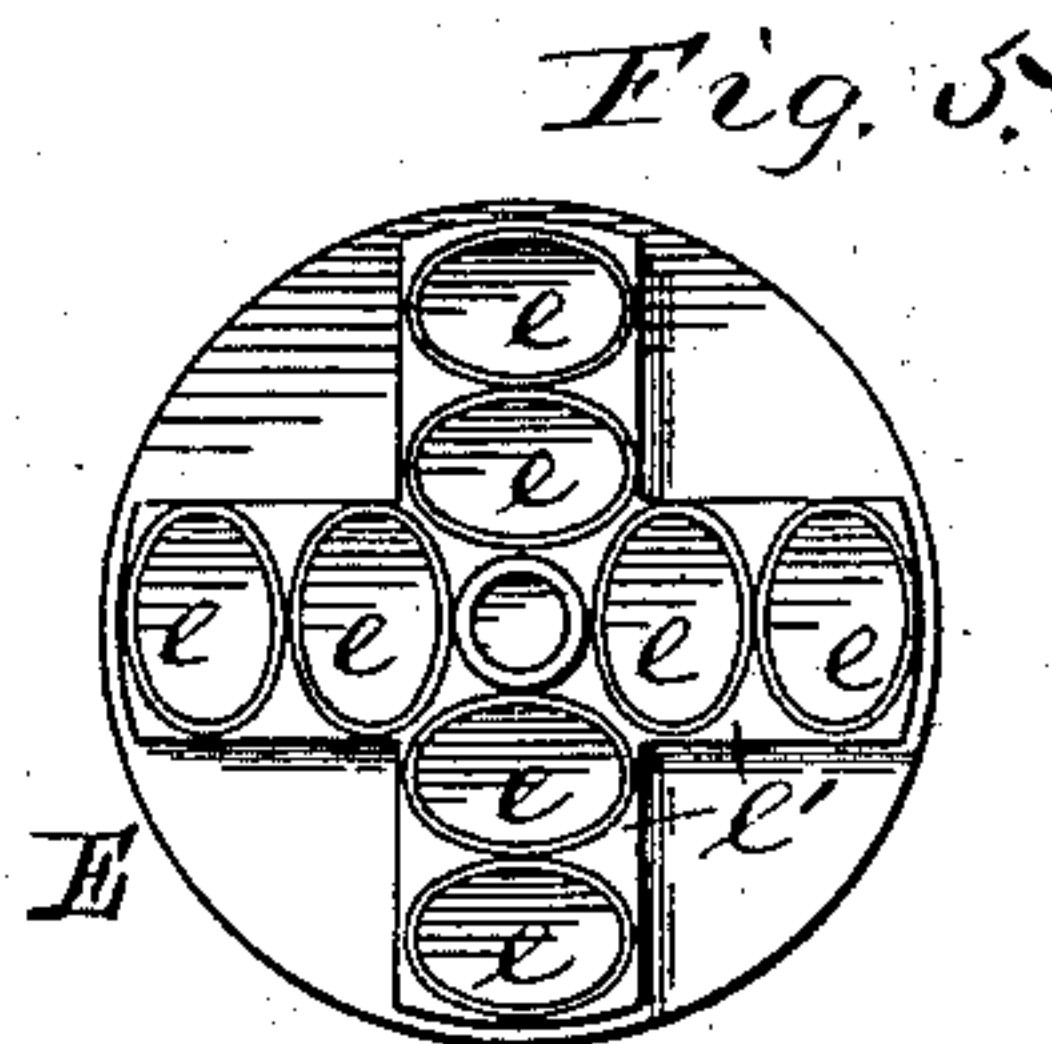
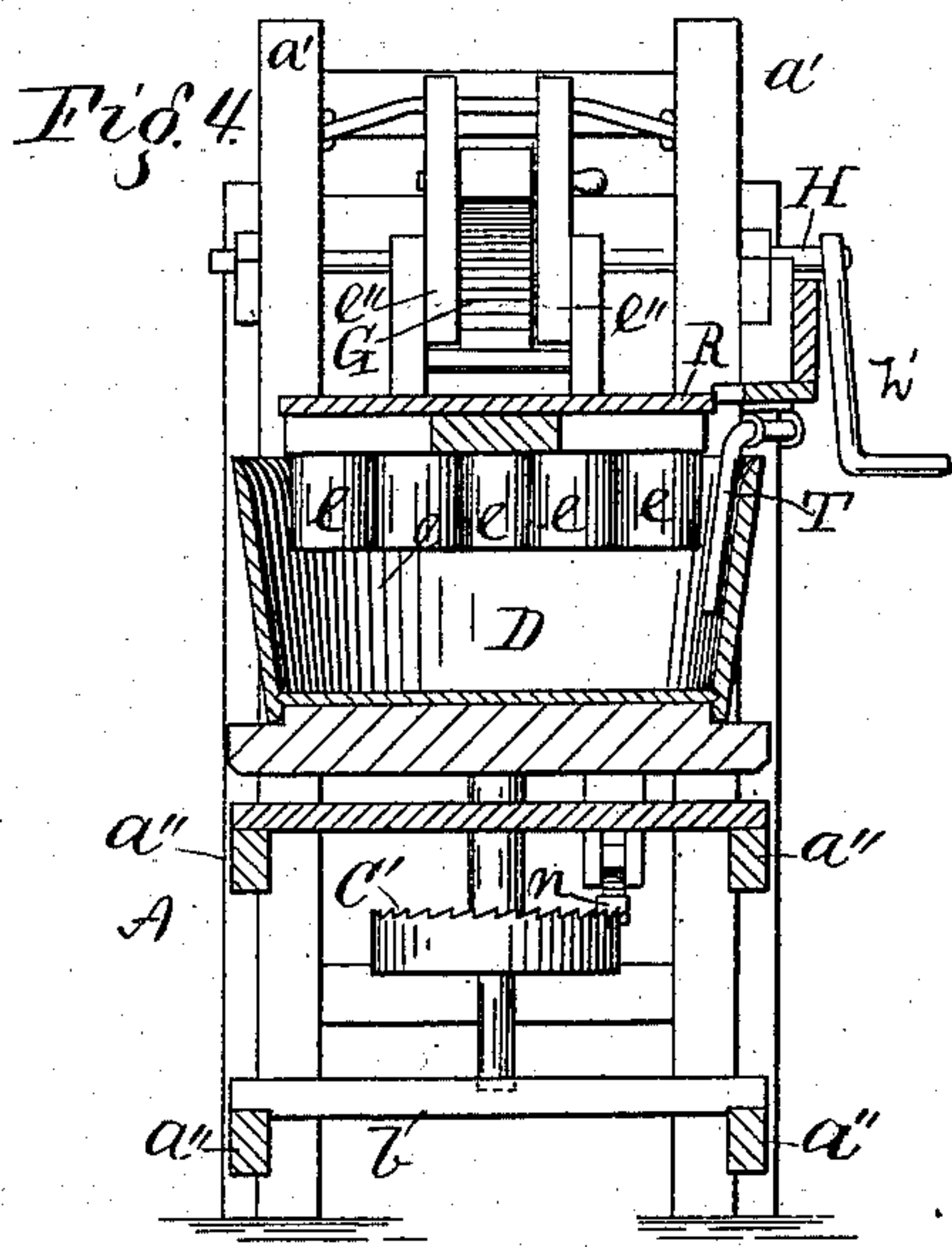
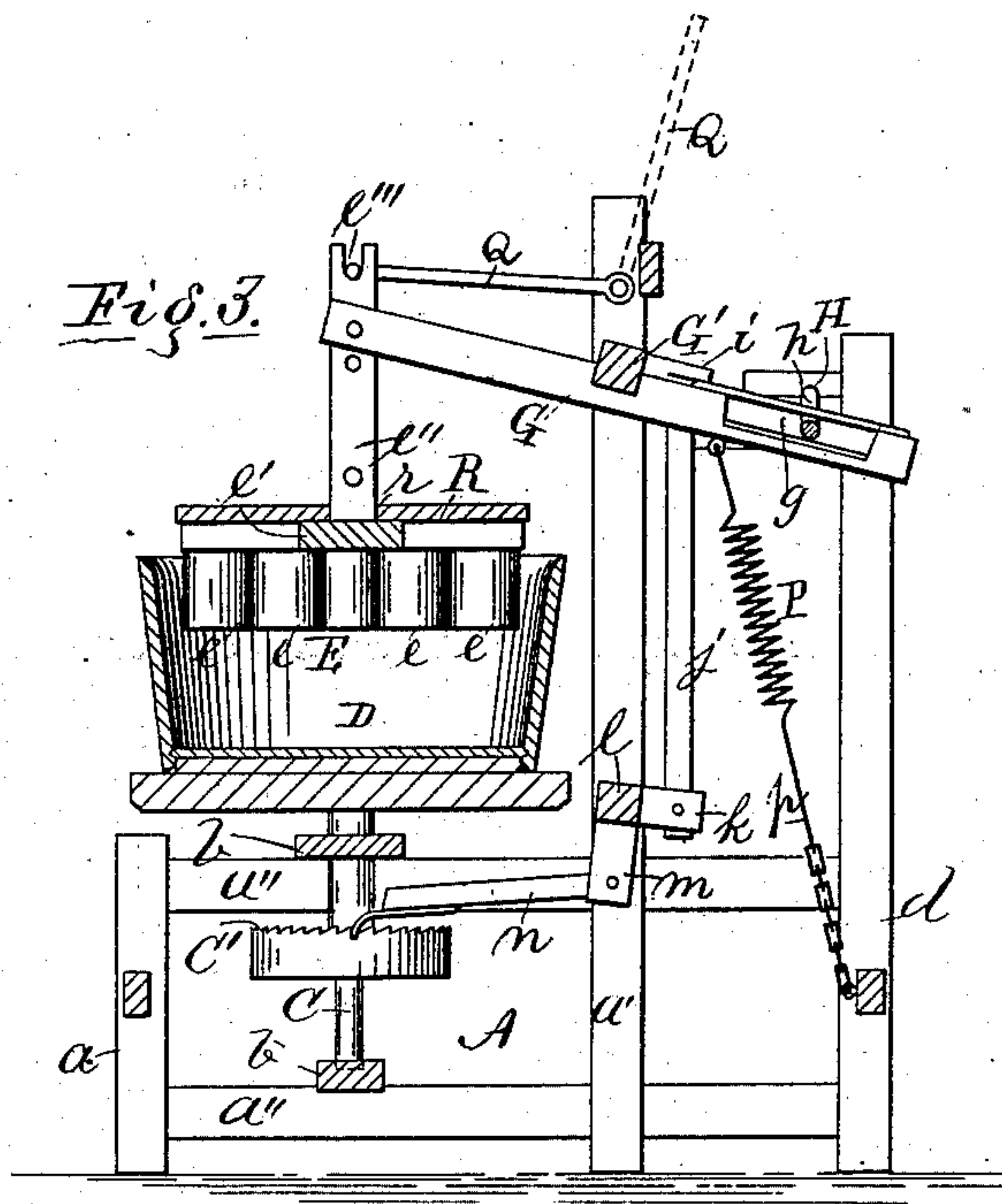
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# UNITED STATES PATENT OFFICE.

JOHN B. PETTIT, OF BURLINGTON, IOWA.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 316,821, dated April 28, 1885.

Application filed October 5, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. PETTIT, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to beater washing-machines of that class a type of which is shown in the Letters Patent No. 228,272, granted to me June 1, 1880; and my present invention consists in constructions and combinations, hereinafter described and claimed.

In the accompanying drawings, which illustrate my invention, and in which the same reference-letter indicates the same part in the different figures, Figure 1 is a perspective. Fig. 2 is a top plan. Fig. 3 is a sectional elevation in line *x x* in Fig. 2. Fig. 4 is a sectional elevation in line *y y* in Fig. 2. Fig. 5 is a plan of the beaters seen from below.

Referring to the drawings by letters, A represents a chair-shaped frame, formed of short posts *a* and longer posts *a'*, united by bars *a''* and supporting-bars *b*, in which is journaled the rotative shaft C, which carries the tub D, and which (shaft C) has a ratchet-toothed crown-wheel, C', fixed to its lower portion, as shown in my former patent hereinbefore cited.

In my present invention I have extended the bars *a''* and connected them as supports to additional posts *d*, which posts *d* are further supported by bars *d'* to form an extension of the frame, by means of which bearings are secured for improvements in mechanism for operating the beaters and rotating the tub, as hereinafter described.

E is the beater, formed of inverted buckets *e*, secured to a cruciform-shaped head, *e'*, fixed to the lower ends of arms *e''*, the same as in my aforesaid patent, except that in the present invention I have shown the buckets *e* of oval form in their cross-section, as preferable to rectangular buckets.

G is a lever connected at its middle portion

to a rocking shaft, G', which is journaled in the posts *a'*, and at its forward end is journaled to the upper ends of the arms *e''* in substantially the same manner as in my aforesaid patent, except that in this invention the lever G has a slot, *g*, lengthwise in its rear end, in which the crank *h* on the crank-shaft H operates. The crank-shaft H is journaled in the bars *d'*. An arm, *i*, on the rock-shaft G', through connecting-rod *j*, arm *k*, rock-shaft *l*, arm *m*, and pawl *n*, gives a rotary motion to the tub in the same manner as in my former patent.

P is a spring having a chain or rod, *p*, at one of its ends, by means of which it is connected to the rear end of lever G. The other is attached to one of the frame-bars, as shown at Fig. 3.

Q is a swinging bail, its ends hinged to the posts *a'*, and its central part seated in the slots *e'''* in the upper ends of the arms *e''*, which arms *e''* project above the lever G, as shown. As the lever G is swung it will also swing the bail Q, which, (bail Q,) by its connection with the arms *e''*, will keep them in a vertical position, and thus align and preserve the proper vertical movement of the beaters. The bail Q can be lifted readily from the slots *e'''* when desired for any purpose, as shown by dotted lines at Fig. 3. A single bar may be used instead of the bail Q; hence I do not limit my claims for this feature of my invention to the specific device—the bail—shown.

R is a splash-board having a slot, *r*, through which the arms *e''* pass, and by means of which the splash-board may be raised and lowered on the arms *e''*. The board R will prevent the suds splashing out of the tub, and may be raised, as described, to permit of access to the tub when desired.

S is a bar to which a wringer may be secured, and is supported at one end by an arm, *s*, which projects upward from a post, *a*, and at its other end by connection to a post, *a'*. A board, S', is connected to the lower side of bar S to carry the water from wringing back into the tub.

T is a steam-pipe leading from any suitable steam-supply to the interior and near the bottom of the tub, and is provided with a valve, *t*, by means of which the admission of steam to the tub may be regulated as desired, and

when it is desired to heat the suds-water in that manner.

Rotating the crank-shaft H by hand, by means of the crank *h'* on its outer end, or by means of any other desired power, will, by the rotation of the crank *h*, oscillate the lever G and reciprocate the beater or pounder, and at the same time give a rotary motion to the tub, as already herein described. In raising the rear end of the lever G the spring P will be extended, and in lowering the rear end of said lever to lift the bucket-beaters the contraction of the spring will aid the operator, and thus tend to equalize the amount of force required on the crank in all parts of its rotation.

The operations and advantages of the in-

verted air-holding buckets need not be herein described.

What I claim as new is—

In a washing-machine, in combination with the tub and supporting-frame, the oscillating lever G, beater-carrying arms *e''*, having slots *e'''* and hinged to said lever, the beater E, and a bail, Q, hinged at one end to the frame and its middle part removably seated in slots *e'''* in the arms *e''*, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. PETTIT.

Witnesses:

ISAAC KAHN,  
R. M. GREEN.