

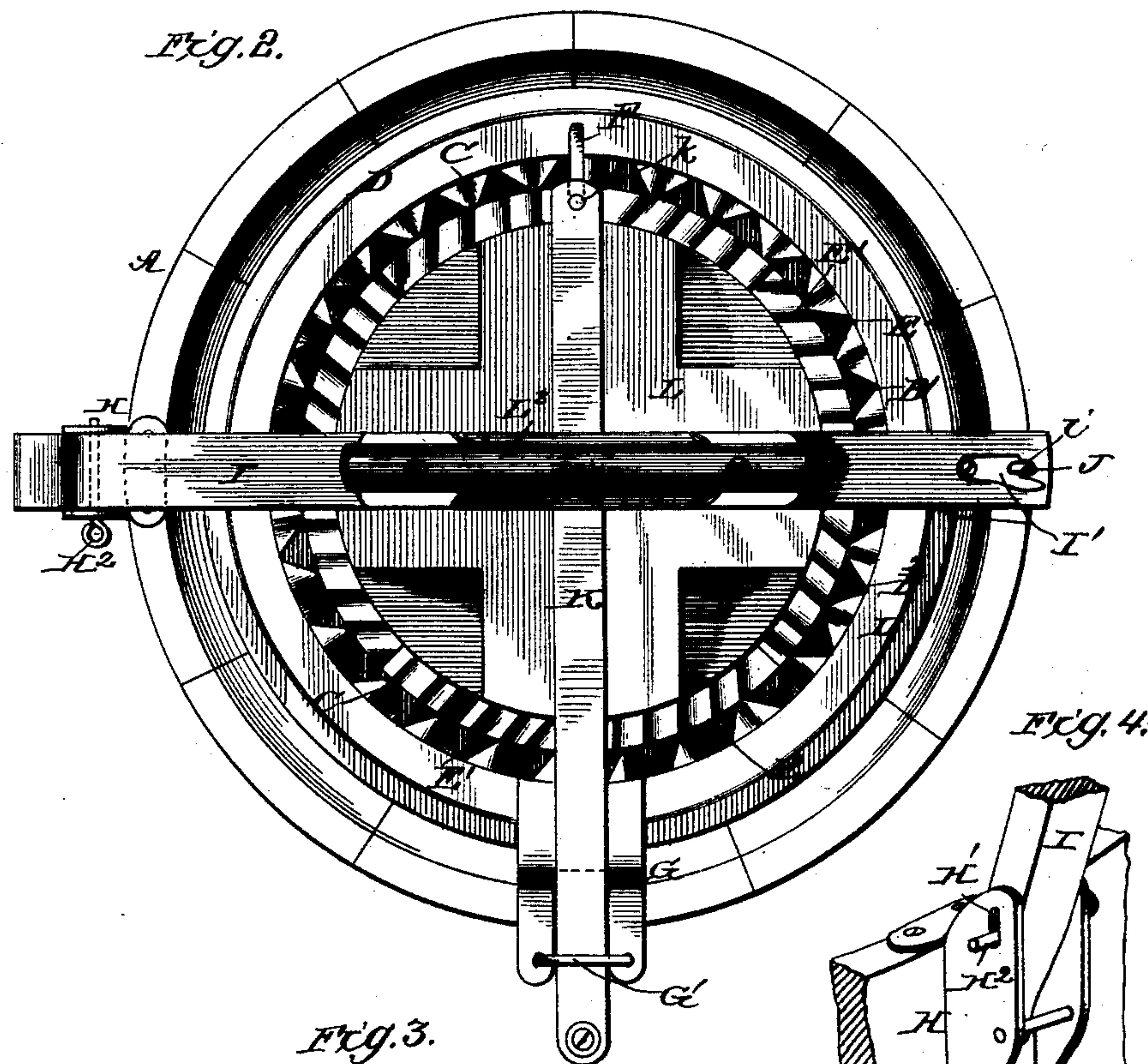
(No Model.)

3 Sheets—Sheet 2.

L. L. KELLOGG.  
WASHING MACHINE.

No. 410,362.

Patented Sept. 3, 1889.



WITNESSES:  
*Fred G. Dietrich*  
*Joe A. Ryan*

INVENTOR  
*Luke L. Kellogg*  
BY *Maan L.*  
ATTORNEY

(No Model.)

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Fig. 6.

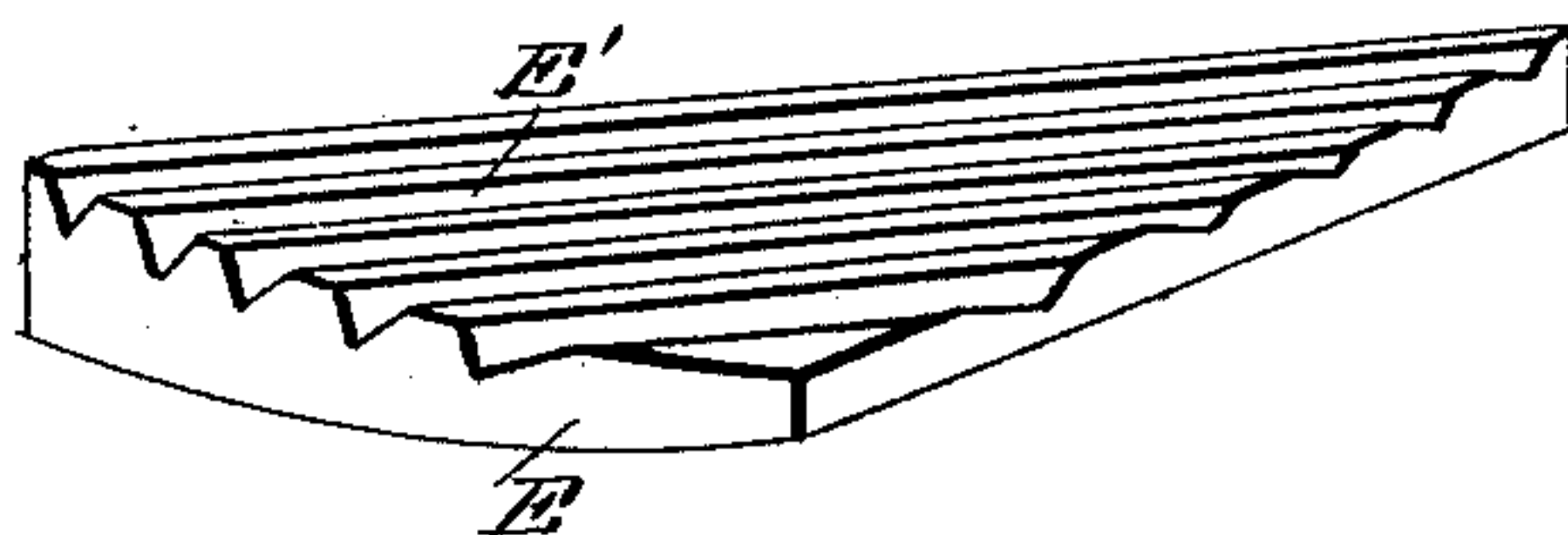
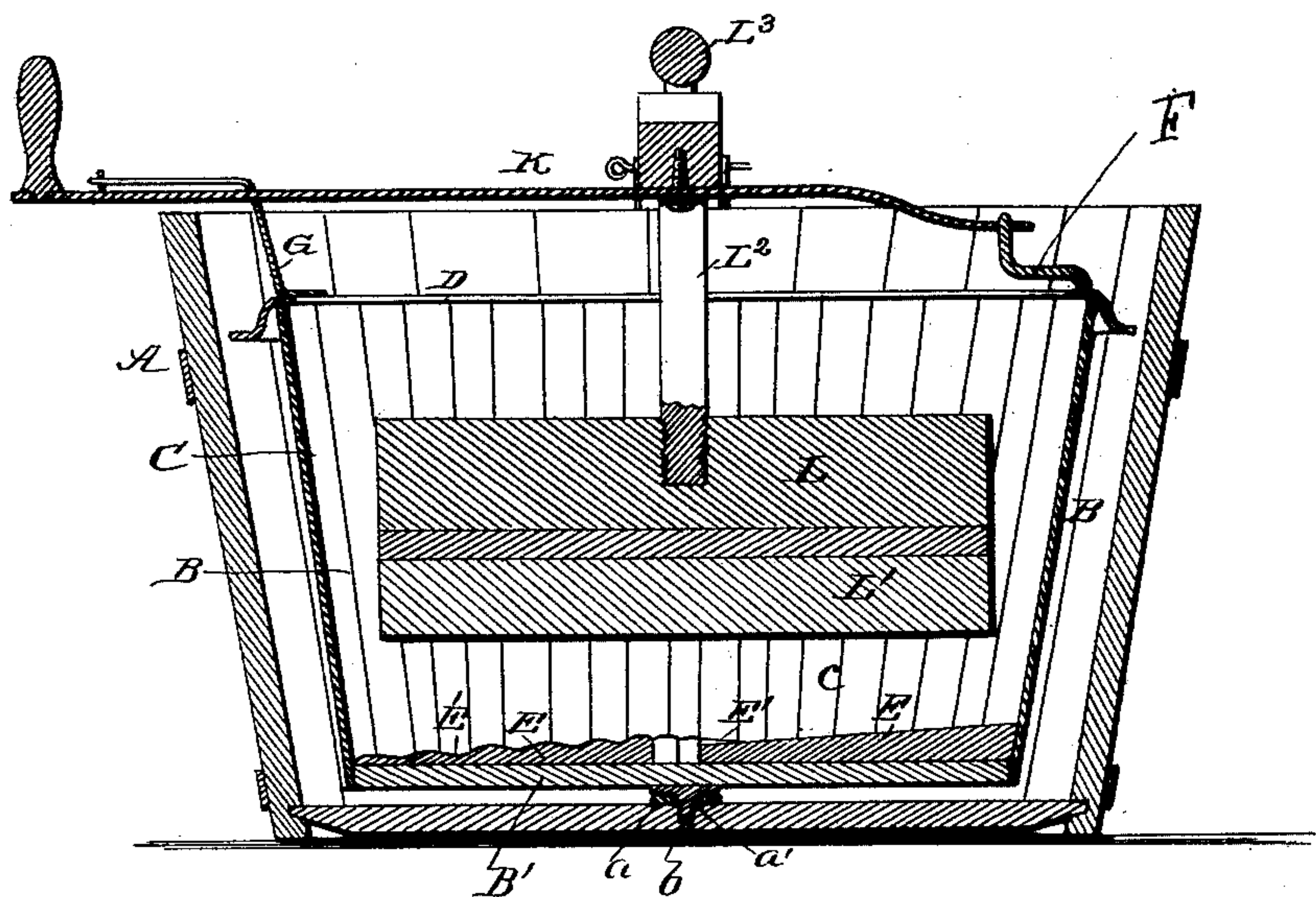


Fig. 7.



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# UNITED STATES PATENT OFFICE.

LUKE L. KELLOGG, OF LEON, NEW YORK.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 410,362, dated September 3, 1889.

Application filed March 15, 1889. Serial No. 303,496. (No model.)

*To all whom it may concern:*

Be it known that I, LUKE L. KELLOGG, of Leon, in the county of Cattaraugus and State of New York, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

My invention consists in a new and improved washing-machine, which will be hereinafter fully described and claimed.

The object of this invention is to produce a washing-machine which is simple and strong in construction and operates with the minimum of friction and labor, while performing its work in a thorough and satisfactory manner. This washing-machine is adapted to be secured in a few moments in any ordinary wash-tub of sufficient size.

Referring to the accompanying drawings, Figure 1 is a central vertical sectional view of my new and improved washing-machine, showing, also, in dotted lines the plunger raised out of the tub and turned back. Fig. 2 is a top plan view of the machine. Fig. 3 is a horizontal sectional view taken on the plane indicated by line 3 3 of Fig. 1, and Fig. 4 is an enlarged detail view of the bracket H. Fig. 5 is a bottom plan view of the plunger L. Fig. 6 is an enlarged detail view of one of the sections E; and Fig. 7 is a vertical central sectional view of the entire machine, taken at right angles to the view shown in Fig. 1.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A indicates a wash-tub of the ordinary construction, the invention being, as above stated, adapted to be used in any ordinary wash-tub of suitable size. On the bottom of this tub is secured centrally a small metal bearing or disk *a*, having a central recess *a'*, in which fits and works a stud *b* on the bottom of the movable tub B of the machine. This tub B is formed with a disk or bottom B', preferably of wood, and having its edge cut to form the series of points B<sup>2</sup>. Between these points are secured the lower ends of the tin flutings C, the upper ends of which are secured to a ring D. These side flutings C are V-shaped in cross-section, with the point of the V extending inward, and between their outer edges are spaces to permit the water to flow freely

through. These flutings serve to thoroughly rub the clothes, the water passing freely between them, as the tub B is reciprocated, as hereinafter described, and they may be made of wood instead of metal if desired. The floor or bottom of the tub B has secured upon it a series of V-shaped sections E, of any suitable material. These sections E each decrease in thickness from their right-hand edge to their left-hand edge, as clearly shown in Figs. 1 and 6 of the drawings, and are formed on their upper surface with parallel grooves E', arranged in each of the sections running about parallel with one of its radii. The result of this construction is to throw the water into the center as the machine is operated, after the manner of a water-wheel.

Upon the top ring D is secured a hook F, which extends in before its point is bent upward, as shown most clearly in Fig. 7 of the drawings, and directly opposite this hook is rigidly secured upon the top ring the outwardly-extending handle-brace G, in the bifurcated upper end of which the operating-handle is held in use by a catch G'.

Upon one side of the stationary main tub A, at the upper edge of the same, is nailed or otherwise secured a bracket H, the parallel sides of which are formed at their upper ends with opposite longitudinal slots H', and a removable pin H<sup>2</sup> passes through these slots and through one end of a wooden cross-bar I. When the cross-bar is lowered across the top of the tub, an upwardly-extending stud J, opposite the bracket H, passes up through an opening *i* in that end of the cross-bar, when the cross-bar is locked in its lowered operative position by pushing a thumb-piece I', which is pivoted upon the bar near that end, under the bent upper end of the stud J.

To the under side of the cross-bar I, at about the center of the same, is pivoted the operating-handle K. One end of this handle, which may be called its "inner" end, is formed with an aperture *k*, through which, upon the cross-bar I being lowered, the hook F passes, thus engaging that end of the operating-handle. The handle K, at the opposite side of the ring D, fits in the upper end of the handle-brace G, and is locked therein when in operation by the catch G', as shown,



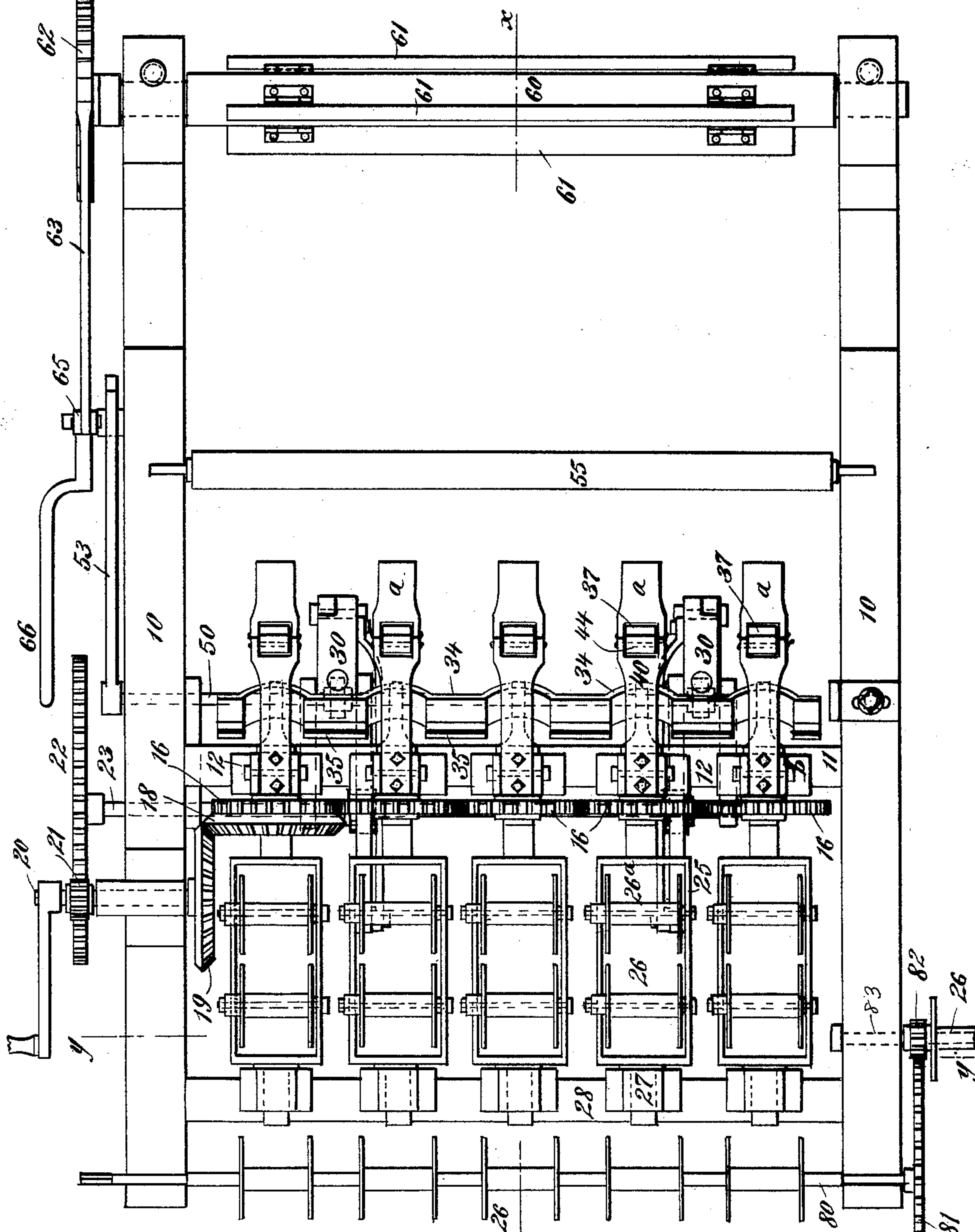
(No Model.)

3 Sheets—Sheet 1.

J. B. KLINE.  
FENCE BUILDING MACHINE.

No. 410,363.

Patented Sept. 3, 1889.



WITNESSES:

*Down Twitchell*  
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*Fig. 1.*

INVENTOR:

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