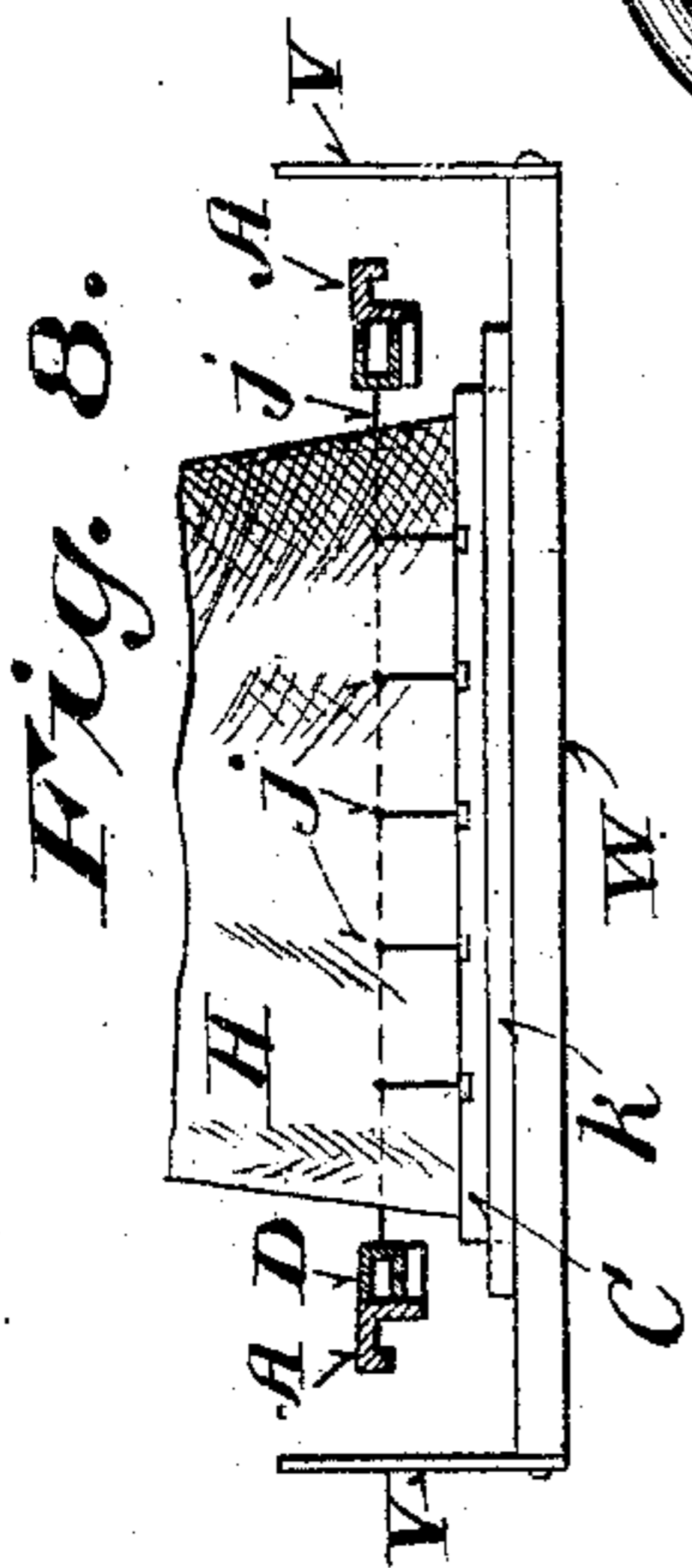
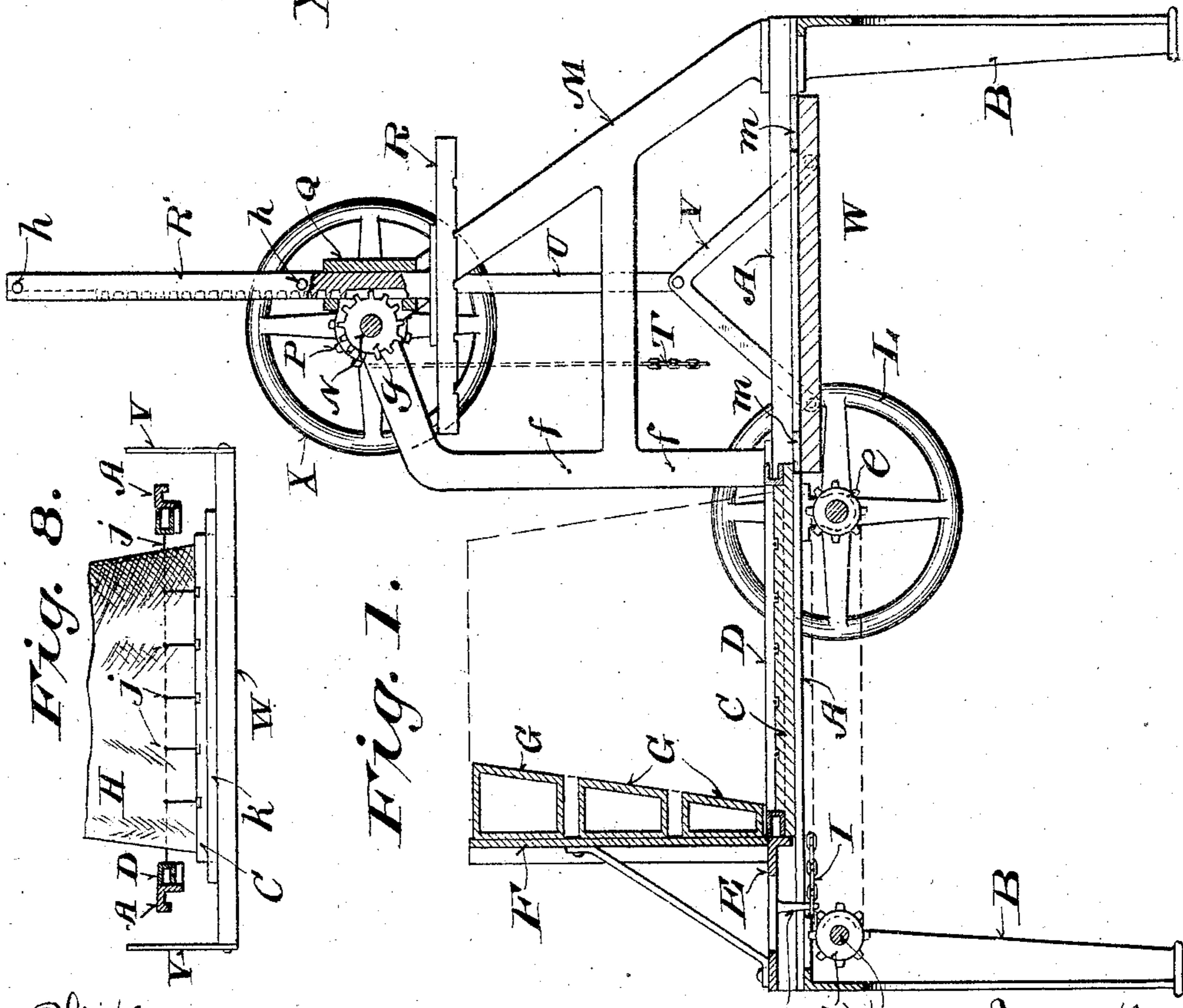
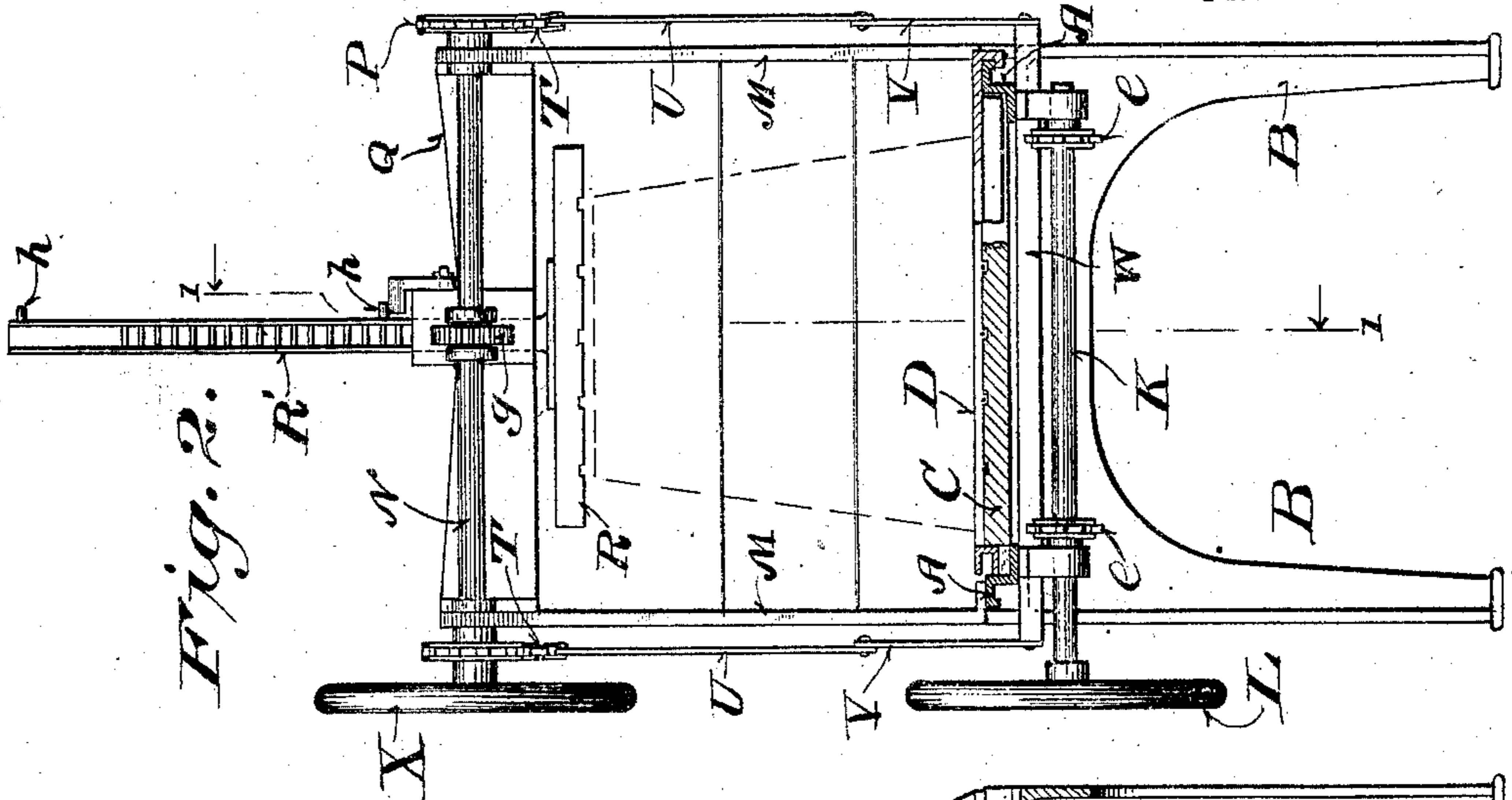


No. 850,464.

PATENTED APR. 16, 1907.

P. BRAHM.
BUTTER CUTTING MACHINE.
APPLICATION FILED MAR. 2, 1907.

2 SHEETS—SHEET 1.



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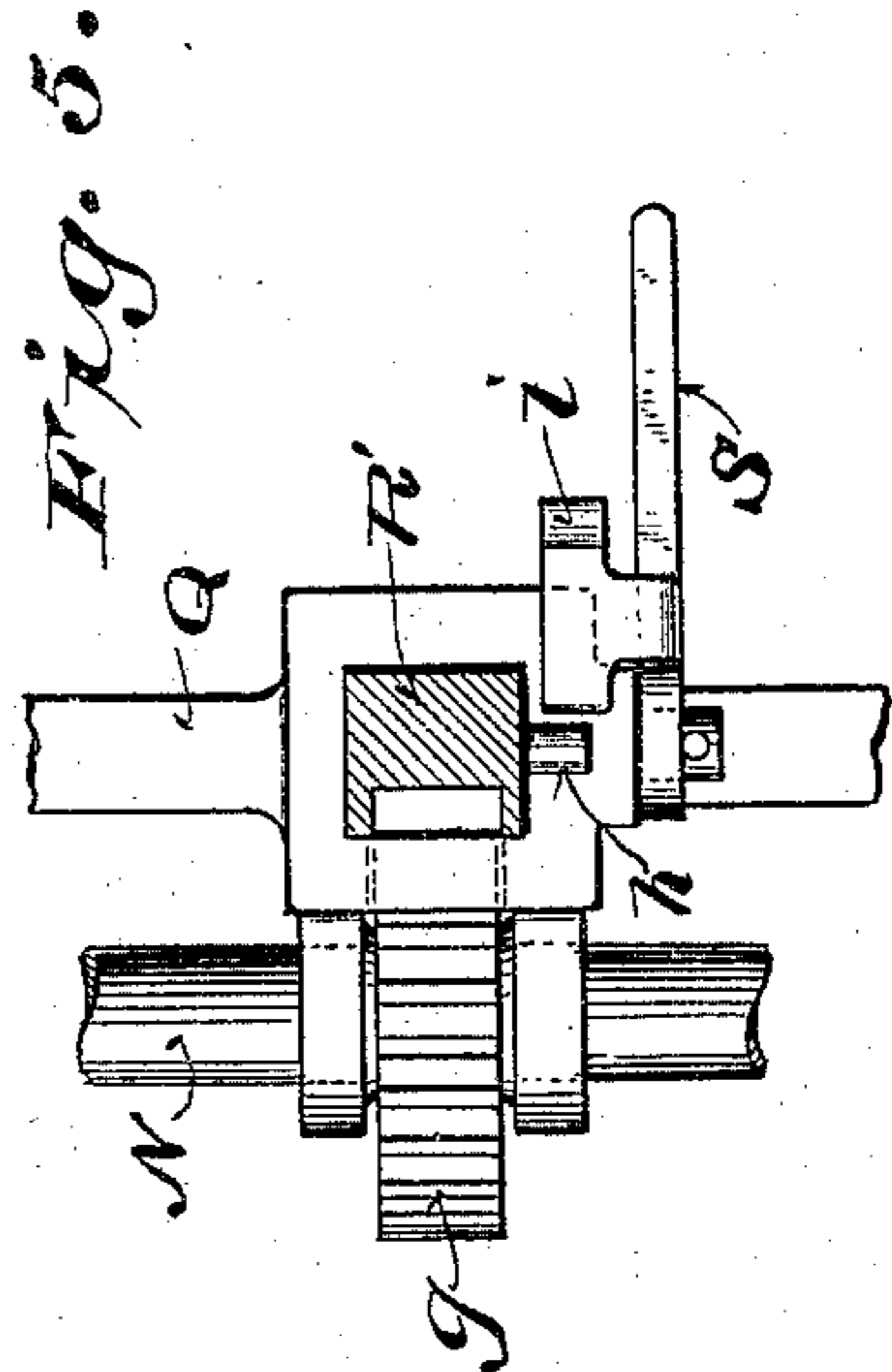
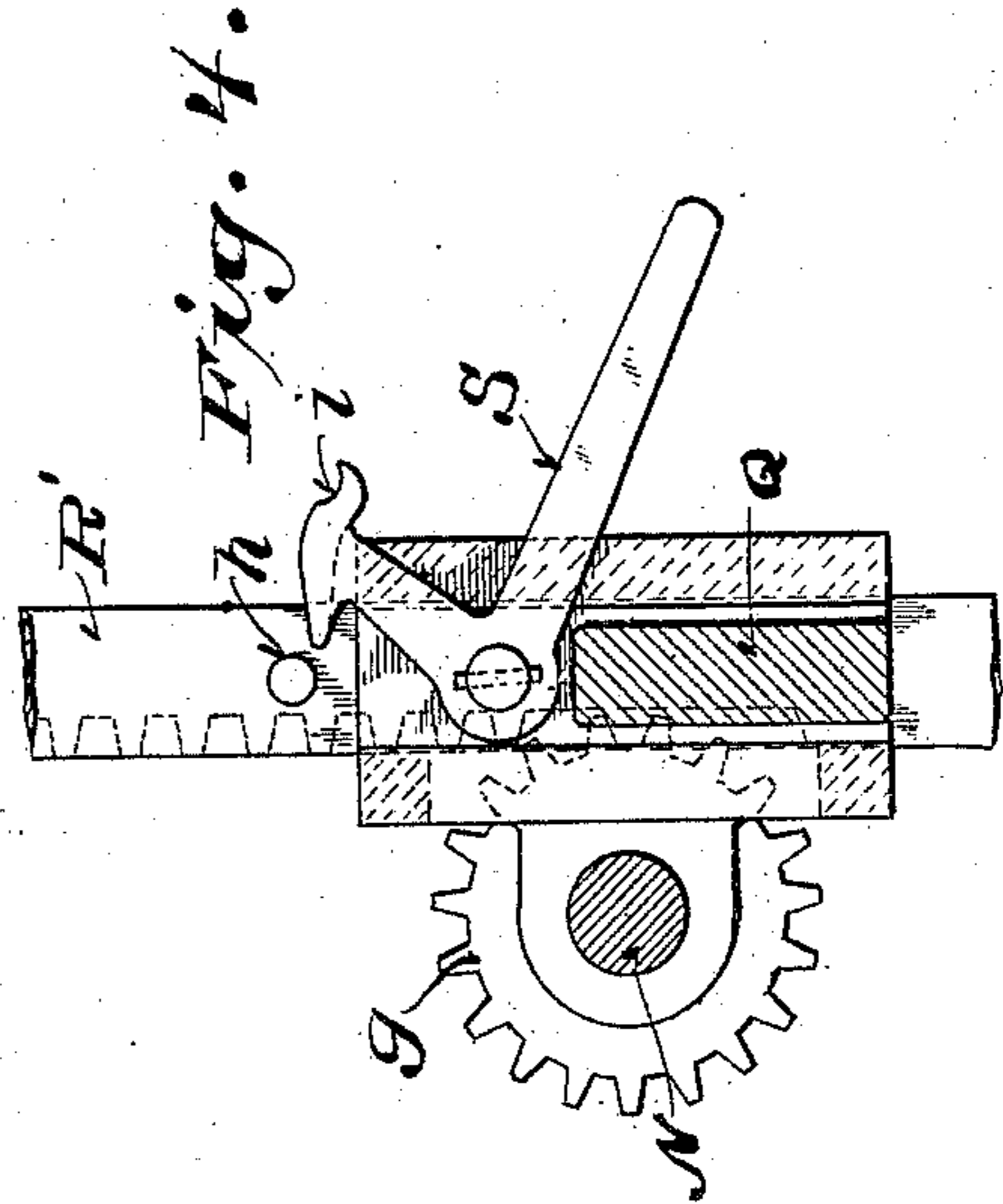
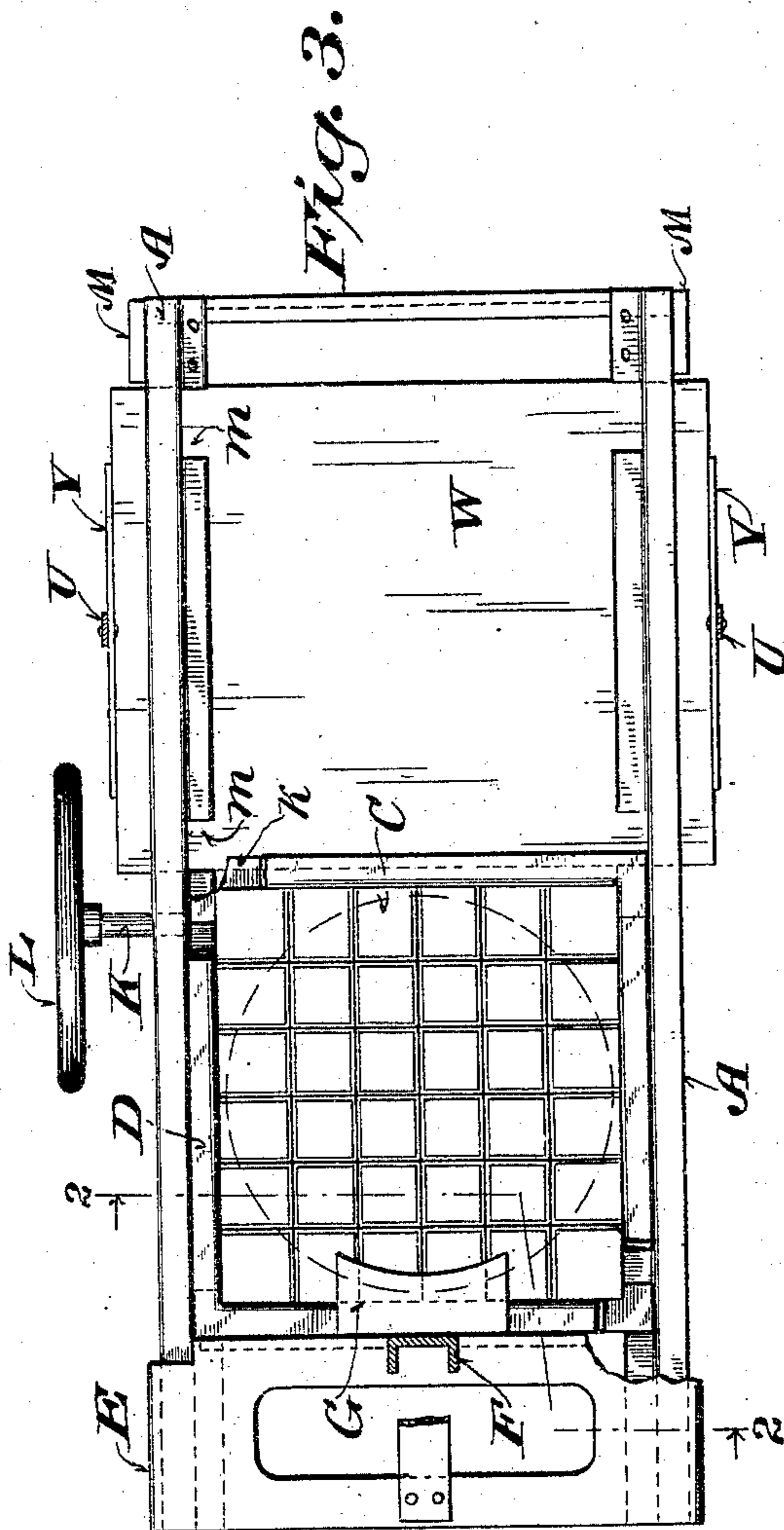


Fig. 6.

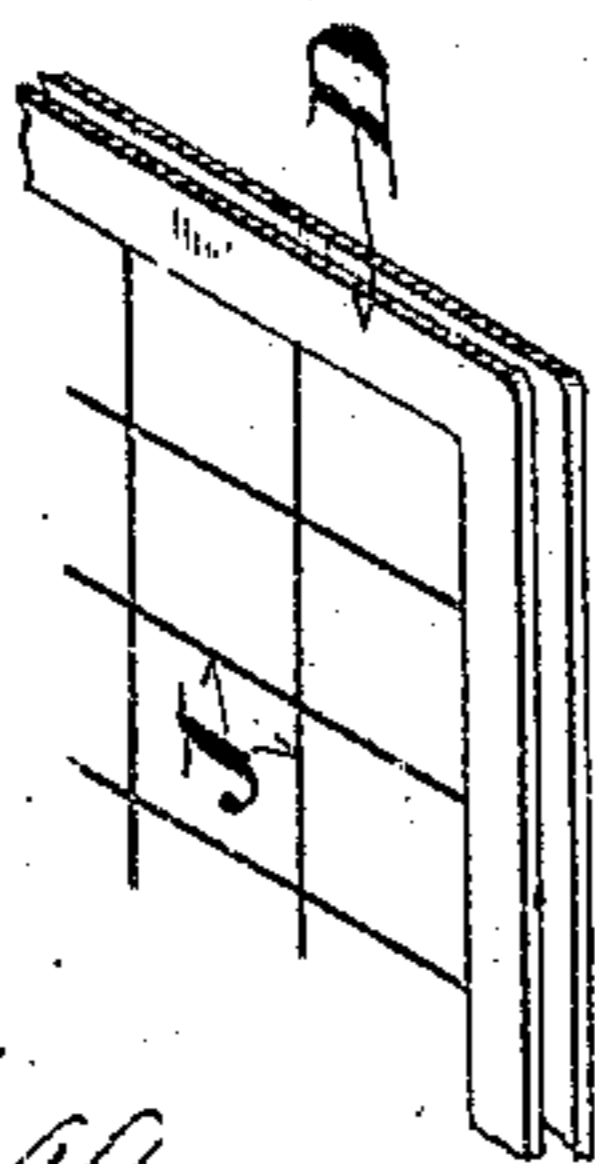
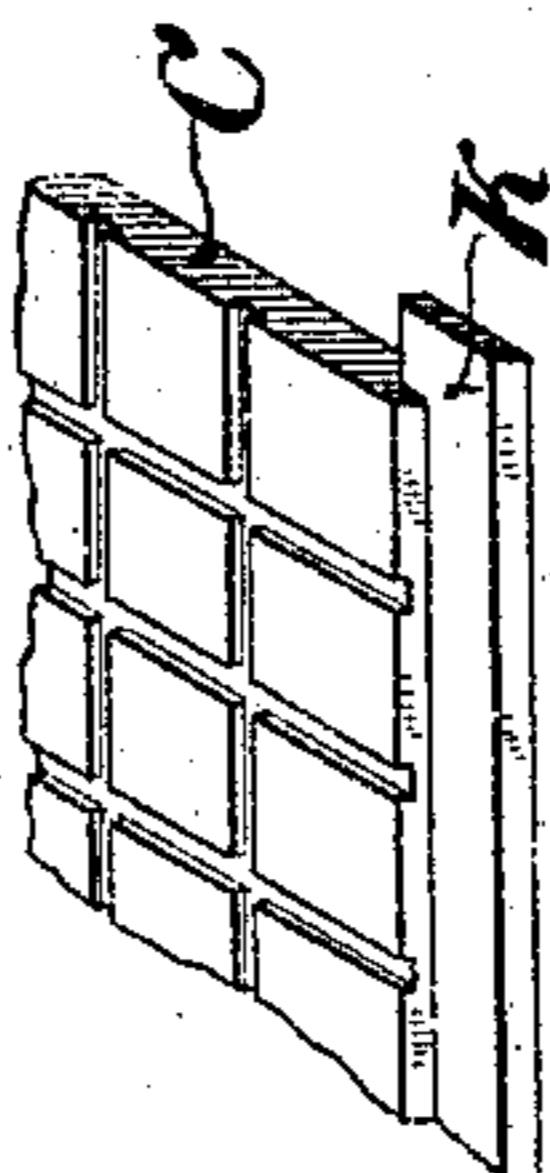


Fig. 7.



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UNITED STATES PATENT OFFICE.

PETER BRAHM, OF MILWAUKEE, WISCONSIN.

BUTTER-CUTTING MACHINE.

No. 850,464.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed March 2, 1907. Serial No. 360,141.

To all whom it may concern:

Be it known that I, PETER BRAHM, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Butter-Cutting Machines; and I do hereby declare that the following is a full, clear, and exact description thereof.

The invention consists in what is herein shown, described, and claimed, its object being to provide simple economical machines for rapid conversion of masses of butter into angular forms of predetermined proportions and weight.

Figure 1 of the accompanying drawings represents a vertically-longitudinal section of a butter-cutting machine in accordance with my invention, the same being indicated by lines 1 1 in the figure next in order; Fig. 2, a transverse section view of the machine indicated by lines 2 2 in the figure next in order; Fig. 3, a plan view of a portion of said machine, parts in this view being broken away and in section; Fig. 4, a side elevation of a fragment of the machine; Fig. 5, a plan view of the same fragment, partly in horizontal section; Fig. 6, a perspective view of a fragment of a cutter-frame; Fig. 7, a similar view of a fragment of a stock-board, said frame and board being elements of the machine; and Fig. 8, a partly transverse section view of a portion of the machine, illustrating a butter-cutting operation of the same.

Referring by letter to the drawings, A indicates each of a pair of parallel, preferably angle-iron, rails suitably secured at their ends to legs B, that are connected in pairs, said rails and legs constituting the stand of the machine. The rails of the stand serve as guides for a stock-board C, that carries a wire-strung frame D, and said rails also serve as guides for a stock-board follower E, provided with a suitably-braced standard F, to which butter-opposing blocks G are secured, the faces of the blocks being inclined and contoured to correspond with the contour of a conical mass H of butter dumped on the frame-covered stock-board from an ordinary butter tub or firkin. The butter is indicated by dotted lines in Figs. 1, 2, and 3 and by full lines in Fig. 8.

The follower is provided with depending lugs, and each lug *b* engages a link belt I, for

which sprocket-wheels *d e* are provided on horizontal shafts J K, respectively, for which the aforesaid stand is provided with depending bearings. The shaft K extends beyond one side of the stand and is provided with an operating-crank or hand-wheel L, the latter being herein shown.

Suitably secured on the stand are parallel side standards M, and arbitrarily-spaced butter-cutting wires *f* are connected at their ends to said standards in the path of the aforesaid mass of butter. The standards M are provided with bearings for a shaft N, carrying sprocket-wheels P, and an upper cross-bar Q, connected at its ends to said standards, is also provided with bearings for said shaft. A central hollow angular swell of the bar Q serves as a guide for a rack-shank R' of a presser-block R, and a pinion *g* of the shaft N extends through a rear slot of the guide-swell of said bar to engage said shank. The rack-shank R' is shown provided with upper and lower lateral lugs *h*, and fulcrumed on a side of the swell of the bar Q is a bell-crank lever S, having an offset end provided with a locking-recess *i* for the engagement of either of said lugs, the lever being swung out of its normal position (shown in Fig. 4) to lift said shank and presser-block R therewith, pinion clearance being provided in the aforesaid shank above and below the teeth of same. However, various means may be employed for controlling operative engagement of the rack and pinion.

Engaging the sprocket-wheels P are sections T of link belting, and suspended therefrom are links U in connection with triangular hangers V of a tray W below the guide-rails of the stand aforesaid, and the shaft N is provided at one end with a crank or hand-wheel X, the latter being herein shown.

The wires *j* of the frame D are crossed, and the stock-board C and presser-block R are kerfed to match said wires, said board being offset at its ends to form supporting-ledges *k* for the frame. These ledges extend from both sides of the stock-board and ride upon the guide-rails A of the stand, which rails are provided with recesses *m* to obtain clearance for said ledges when said board is in register with the suspended tray W aforesaid, the normal position of this tray being shown in Figs. 1 and 2.

In practice the stock-board, cutter-frame,

mass of butter, and follower aforesaid are moved from normal position, Fig. 1, by forward drive of the link belts I, said mass of butter being cut by the horizontal wires *f*,
 5 that are of any predetermined number and distance apart. In the meantime the presser-block has been lifted by operation of the lever S on the lower lug *h* of the rack-shank R' or otherwise, whereby said shank is for the
 10 while held clear of the pinion *g* and clearance is had for the butter under said presser-block. The butter having been carried far enough under the presser-block, the stock-board drops onto the suspended tray, leaving
 15 the cutter-frame on the guide-rails of the stand, and the lever S having been swung back clear of the lug aforesaid the rack-shank of said presser-block is again engaged with its actuating-pinion. Now by turning the shaft
 20 N in the proper direction the butter is forced down through the cutting-frame, the tray and stock-board descending with said butter. Most of the conical mass of butter is now divided into angular forms of predeter-
 25 mined proportions and weight, and the tray having made its full descent the rack-stem of the presser-block is clear of its actuating-pinion, with which it is again engaged as a result of an operation of the aforesaid lever
 30 on the upper lug of said shank or otherwise after a removal of the stock-board and cut butter from said tray. The various movable parts of the machine are now returned to normal position and the operations afore-
 35 said indefinitely repeated. If the butter be in an angular mass of suitable proportions, all of the same will be divided into angular forms, as aforesaid, as the result of above-described operations of the machine.

40 I claim—

1. A butter-cutting machine comprising a stand, a stock-board and follower movable on the stand, provision being had for auto-
 45 matic clearance of said stand by the stock-board at a predetermined time in the forward movement of same; a cross-wired frame movable on the aforesaid stand in temporary engagement with said board; a butter back-
 50 ing in connection with the aforesaid follower, horizontal wires supported at various elevations in the forward path of butter carried by the stock-board, a vertically-movable tray normally in position to receive said board when the same clears the stand and frame
 55 aforesaid, a vertically-movable presser-block in line with the tray, and means for synchronous lowering and lifting of said presser-block and tray.

2. A butter-cutting machine comprising a
 60 stand, a stock-board and follower movable on the stand, provision being had for automatic clearance of said stand by the stock-board at a predetermined time in the forward movement of same; a cross-wired frame mov-
 65 able on the aforesaid stand in temporary en-

gagement with said board; a butter backing in connection with the aforesaid follower, horizontal wires supported at various elevations in the forward path of butter carried
 70 by the stock-board, a vertically-movable tray normally in position to receive said board when the same clears the stand and frame aforesaid, a vertically-movable inde-
 75 pendently-adjustable presser-block in line with the tray, and means for synchronous lowering and lifting of said presser-block and tray.

3. A butter-cutting machine comprising a stand, a stock-board and follower movable on the stand, provision being had for auto-
 80 matic clearance of said stand by the stock-board at a predetermined time in the forward movement of same; a cross-wired frame movable on the aforesaid stand in temporary
 85 engagement with said board; a back stand-ard on the aforesaid follower, blocks secured to the standard and having their faces inclined and contoured to correspond with a conical mass of butter forward of same, hori-
 90 zontal wires supported at various elevations in the forward path of butter carried by the stock-board, a vertically-movable tray normally in position to receive said board when the same clears the stand and frame afore-
 95 said, a vertically-movable presser-block in line with the tray, and means for synchronous lowering and lifting of said presser-block and tray.

4. A butter-cutting machine comprising a
 100 stand having horizontal guide-rails provided with recesses, a stock-board having laterally-projecting end ledges that slide upon said rails and clear the recesses of same; a cross-wired frame movable on the aforesaid rails in
 105 temporary engagement with the stock-board, a follower in sliding engagement with the aforesaid rails and provided with a butter backing, lugs depending from the follower, link belts engaged by said lugs, shafts for
 110 which the stand is provided with bearings, sprocket-wheels in connection with the shafts and engaging said belts, a turning device in connection with one of said shafts, stand-
 115 ards rising from the aforesaid stand, horizontal wires in connection with the standards at various elevations in the forward path of butter carried by the stock-board, a presser-block having a rack-shank for which
 120 a cross-bar connecting the standards is provided with a guide, a shaft for which said standards are provided with bearings, a pinion, sprocket-wheels and a turning device fast on the latter shaft, the pinion being
 125 engageable with said shank, sections of link belts engaging the latter sprocket-wheels, and a tray hung from said sections of link
 130 belting to receive the aforesaid stock-board, this tray and the presser-block being movable in synchrony.

5. A butter-cutting machine comprising a

presser-block having a suitably-guided rack-shank provided with upper and lower lateral lugs, an actuating-pinion for the shank, and a bell-crank lever fulcrumed on the shank-
5 guide to engage with either of said lugs and thereby bring said shank out or in engagement with said pinion, pinion clearance being provided in the aforesaid shank above and below the teeth of same.

In testimony that I claim the foregoing I 10
have hereunto set my hand, at Milwaukee,
in the county of Milwaukee and State of
Wisconsin, in the presence of two witnesses.

PETER BRAHM.

Witnesses:

N. E. OLIPHANT,
GEORGE FELBER.