

(No Model.)

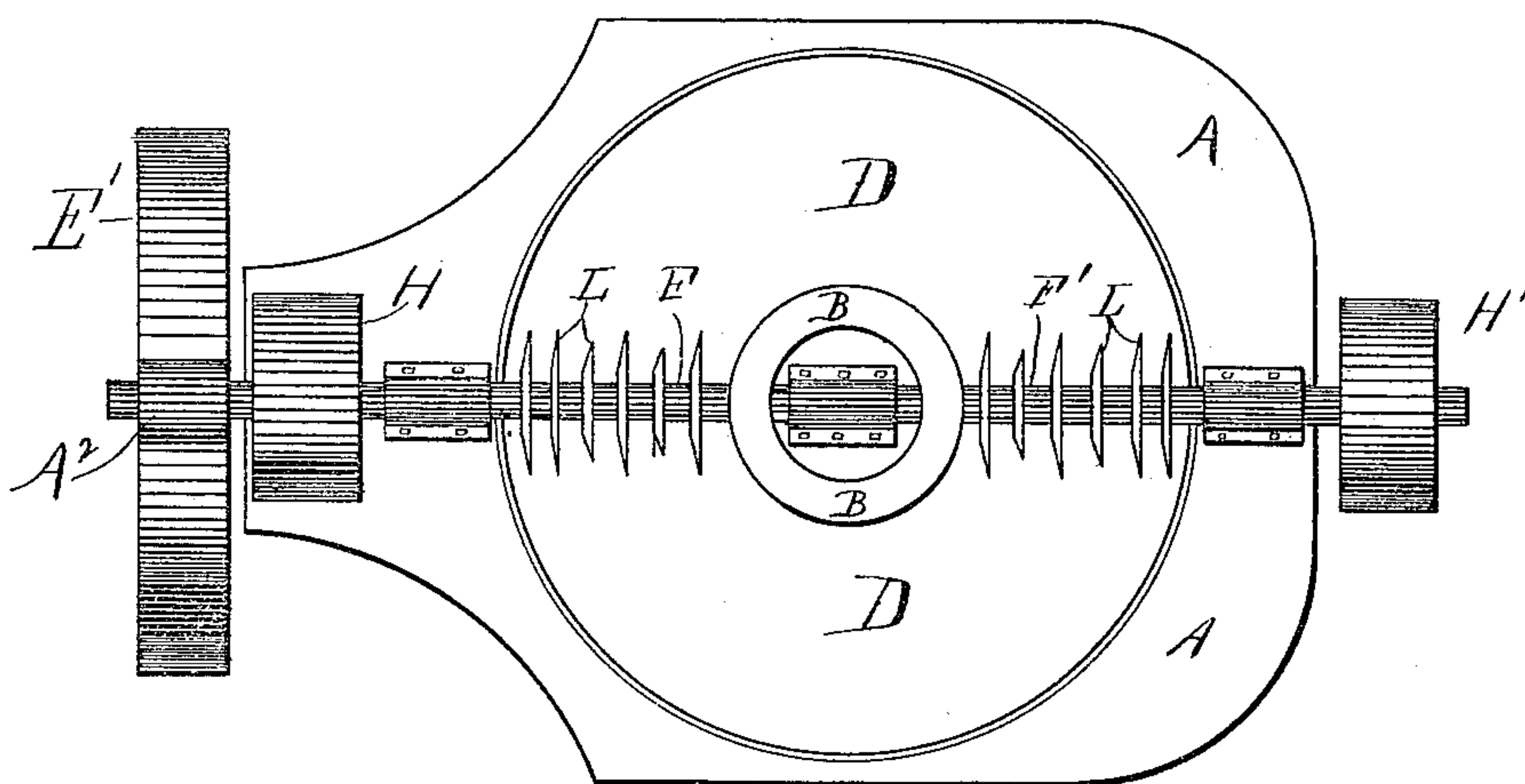
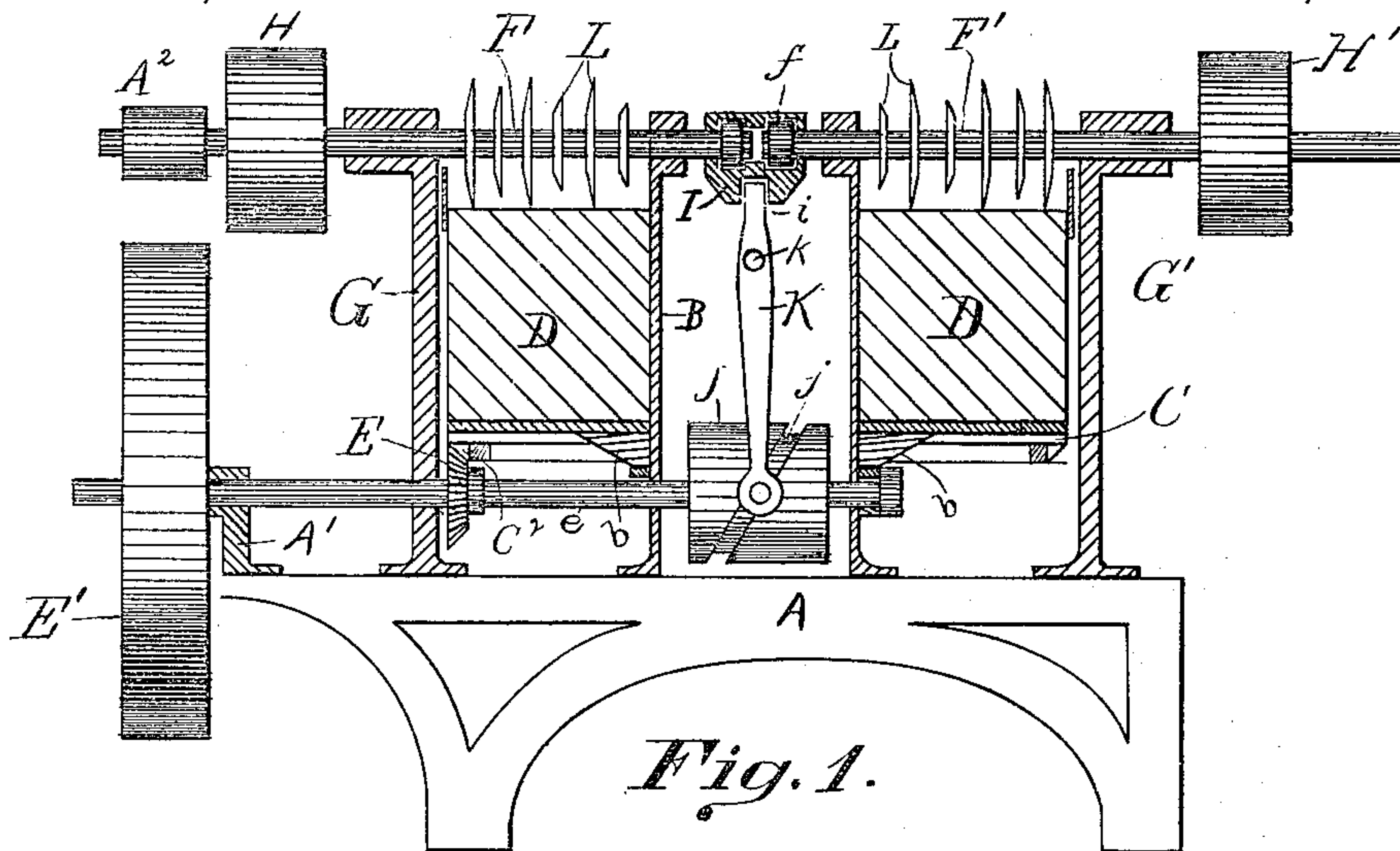
2 Sheets—Sheet 1.

G. H. STALLMAN.

MEAT CUTTER.

No. 365,206.

Patented June 21, 1887.



*Attest*

*E. M. Harmon,*

*W. J. Christopher*

*Inventor*

*Granville H. Stallman*  
*per Wm. Hubbell Fisher,*  
*Atty.*

(No Model.)

2 Sheets—Sheet 2.

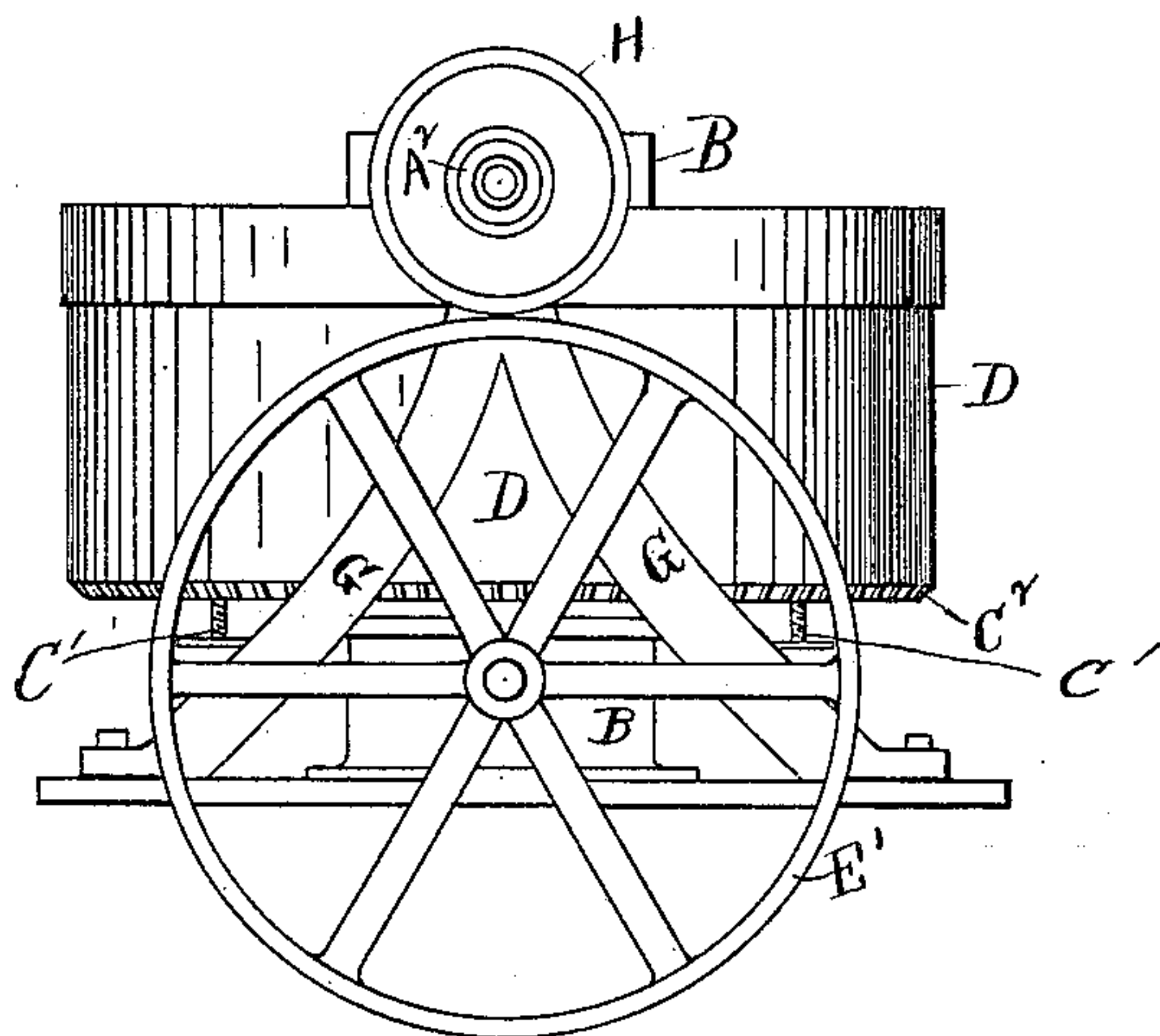
G. H. STALLMAN.

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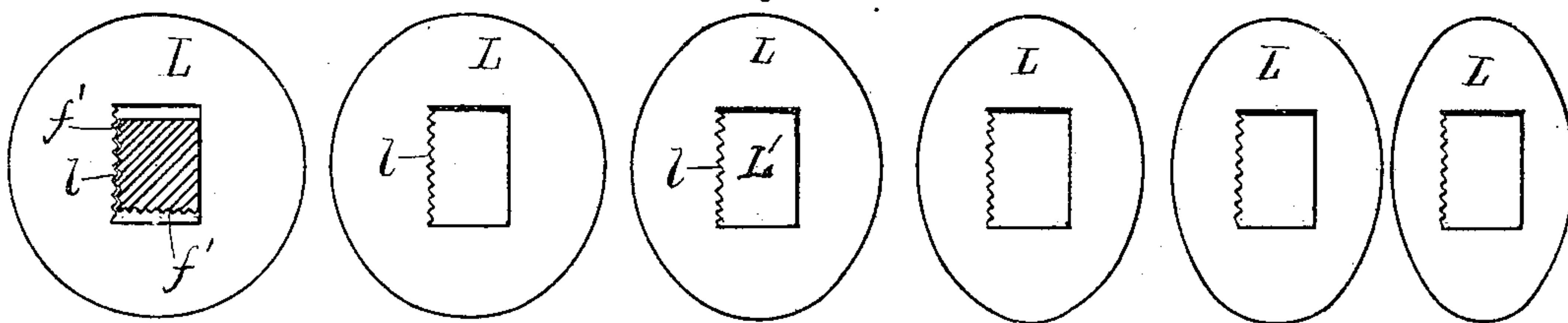
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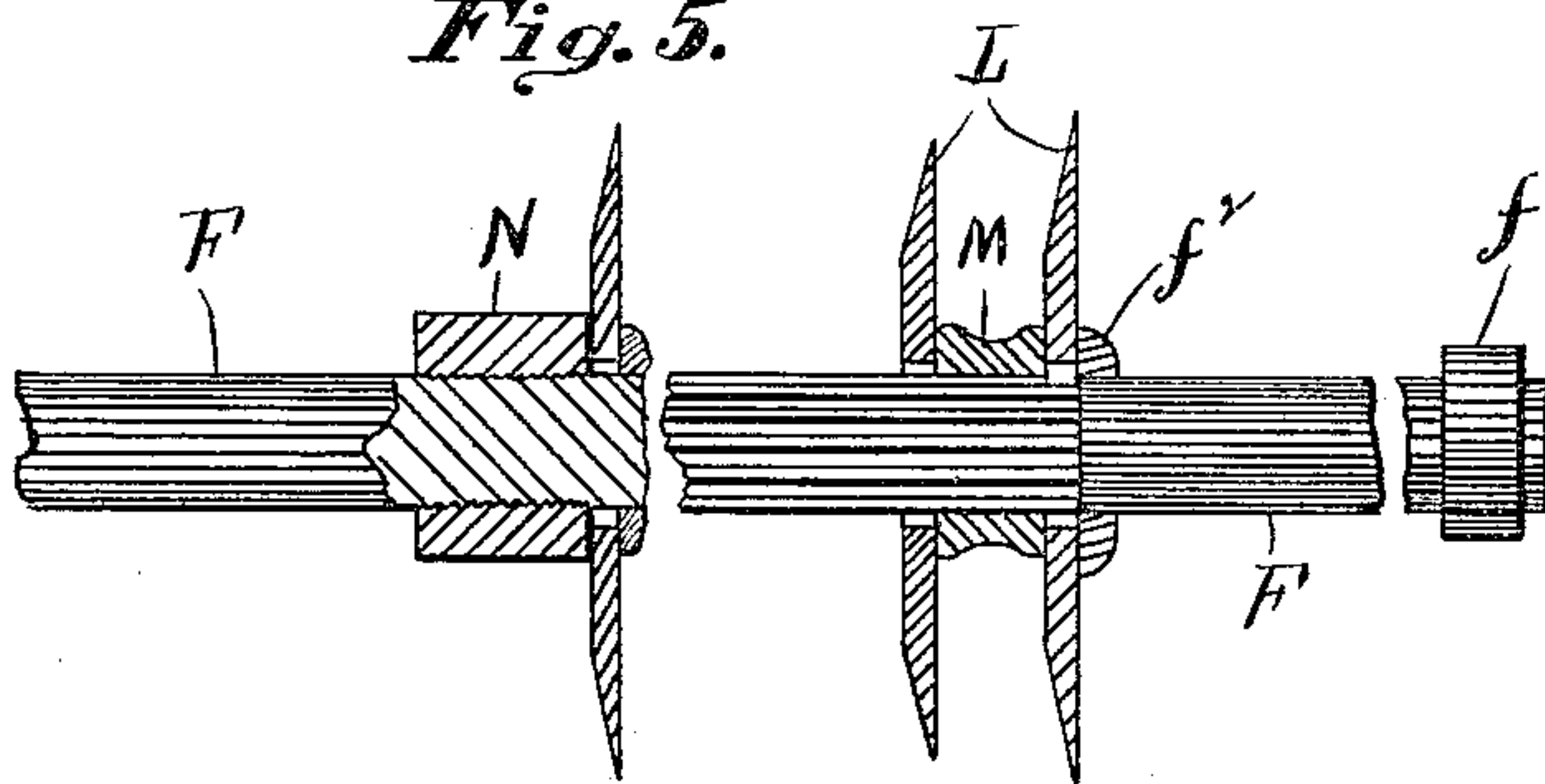
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

GRANVILLE H. STALLMAN, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF  
TO MAXIMILIAN SIEREVELD, OF SAME PLACE.

## MEAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 365,206, dated June 21, 1887.

Application filed June 18, 1886. Serial No. 205,536. (No model.)

*To all whom it may concern:*

Be it known that I, GRANVILLE H. STALLMAN, of Cincinnati, Hamilton county, and State of Ohio, have invented certain new and useful Improvements in Meat-Cutters, of which the following is a specification.

The several features of my invention and the advantages arising from their use, conjointly or otherwise, will be apparent from the following specification.

In the drawings, Figure 1 is a vertical central section of my machine. Fig. 2 is a top view of the machine. Fig. 3 is an elevation of the left-hand end of the machine as shown in Fig. 1. Fig. 4 shows the series of cutters used in the machine. Fig. 5 is a sectional elevation illustrating the means of attachment of the cutters to the shaft.

The machine is mounted on any convenient form of support, A. A hollow column, B, is provided with an annular flange, *b*, which supports a plate, C. This plate C is slipped over the column B and rests upon the flange *b*. The block D rests on the screws C', which are screwed through the plate C and are used to adjust the block. A rim, *d*, surrounds the block and projects above its upper surface. The upper surface of the block is flat. The under side of the plate C is provided with the annular beveled rack C<sup>2</sup>, which meshes with the beveled pinion E, mounted on the shaft *e*. The shaft *e* passes through the column B and is journaled on the opposite side. The bearing A' forms the other support for the shaft *e*. The shaft *e* derives its motion from the pulley E'.

The cutters are mounted on the shafts F F', journaled, respectively, in the standards G and G'. The inner ends of these shafts are supported in bearings on the top of the column B. These shafts are parallel to the top surface of the block D. The shaft F' is operated by the driving-pulley H'. The inner end of each shaft F F' is provided with a collar, *f*, which rests in grooves in the box I. The shaft *e* has inside the column B a cylindrical cam, J, mounted on it. This cam has an oblique groove, *j*, cut around it. The lever K is fulcrumed on a rod passing through the column B, and has its upper end fitting in a socket, *i*,

in the bottom of the box I, while its lower end is provided with a pin which fits in the groove *j* of cam J.

The cutters L are attached to their respective shafts in a peculiar manner. (Shown in Fig. 5.) The shaft is cylindrical at the bearings, but where the cutters are placed it is square in cross-section. Throughout the square part of the shaft two of its surfaces are provided with longitudinal grooves *f'*. At the inner end of the square portion is placed a stationary collar, *f*<sup>2</sup>. Each of the cutters L is provided with a centrally-located opening, L'. This opening is rectangular, and has one dimension greater than the other to allow of an adjustment, to be presently described. One of the long edges of this opening is provided with serrations *l*, which are similar in size and shape to the grooves *f'* on the shaft. When the cutters are slipped onto the shaft, the serrations *l* engage with the grooves *f'*, and allow the cutter to be placed either centrally or eccentrically upon the shaft.

In setting the cutters the first one is placed against the collar *f*<sup>2</sup>, then a thimble, M, is slipped over the shaft, and then the next cutter, L, is set, and so on. After the last cutter has been set the nut N is screwed on, clamping the whole in position.

The different cutters vary considerably from each other in shape. The outermost cutter is circular, and is provided with a cutting-edge on its whole periphery. The innermost cutter is quite an elongated ellipse. The intermediate cutters are ellipses of gradually lessening short diameter approaching that of the innermost cutter. In Fig. 4 a series of these cutters is illustrated. The cutting-edges gradually diminish in extent from the outer to the inner cutter in consequence of the gradual diminution of the peripheries of the cutters.

The mode of operation of the machine is as follows: The meat to be cut is placed on the block D and the shafts F and F' started, rotating in opposite directions. This rotates the cutters which cut the meat on the block D. The action of the cutter is twofold: first, the cutter moving more rapidly than the block produces a draw cut similar to that produced by a knife in the hand; and, secondly, the el-



liptical shape of the knife gives it also a striking cut. A belt passing around the pulleys A<sup>2</sup> and E' imparts motion to the shaft *e*. The shaft *e* causes a slow rotation of the block D through the beveled gear E and rack C<sup>2</sup>. Each rotation of the shaft *e* also produces a reciprocating movement of the lever K, which in turn moves the shafts F F' and their cutters back and forth. The combination of these movements produces a very thorough cutting of the meat. As the block D rotates its inner edge travels more slowly than the outer edge; hence if the inner cutter did the same amount of work as the outer cutter it would cut the meat much finer than the outer one in the same time.

The peculiar shape of my cutters enables me to regulate the amount of work each is to do. Thus I am enabled to adapt each cutter to the particular amount of work to be done at the particular part of the block on which it works. In this way I secure uniform cutting over the whole block.

Another advantage of my form of knife is this: When the cutting-edge wears off, the knife may be set out by means of the central adjustment, and if eccentrically adjusted one end may be set out when the other gets dull. The knives may also be reversed face for face, bringing the brunt of the cutting on opposite ends of each cutting-edge. The special advantage of the machine lies in the character of the cut which the knives make. A draw cut in machines of this class has been long desired, and this my machine makes to perfection. The striking cut is also a special advantage.

Another important advantage of my machine is the reciprocation of the cutter-shafts. This to-and-fro motion of the cutters prevents the necessity of turning the meat on the block by hand during the process of cutting.

I am aware that heretofore means have been employed to impart a reciprocating movement to the cutter-shaft of a meat-cutter, and that a cam on the cutter-shaft has been employed for this purpose, and therefore I do not claim the same; but

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. In a meat-cutter, the combination of a horizontal rotating block, a rotating shaft parallel with said block, a series of elliptical cutters having their long axes equal and their short axes gradually varying from each other, said cutters being mounted on said shaft, and means for rotating the shaft, substantially as described.

2. In a meat-cutter, the combination of a cutter-block having a horizontal surface and a rotating cutter-shaft parallel to the face of the block, and cutters attached thereto, the said cutters being of varying widths and equal in length, and having their cutting ends equidistant from the cutting-block, substantially as and for the purposes specified.

3. The combination of the shaft F, having grooves *f'*, and the adjustable cutter L, having rectangular opening L', provided with serrations *l* on its longer side, substantially as and for the purposes specified.

4. In a meat-cutter, the combination of the shaft *e*, having cam J, provided with groove *j*, lever K, box I, and shafts F F', collars *f*, and cutters L, substantially as and for the purposes set forth.

GRANVILLE H. STALLMAN.

Witnesses:

G. K. RANKIN,  
CHAS. F. RANKIN.