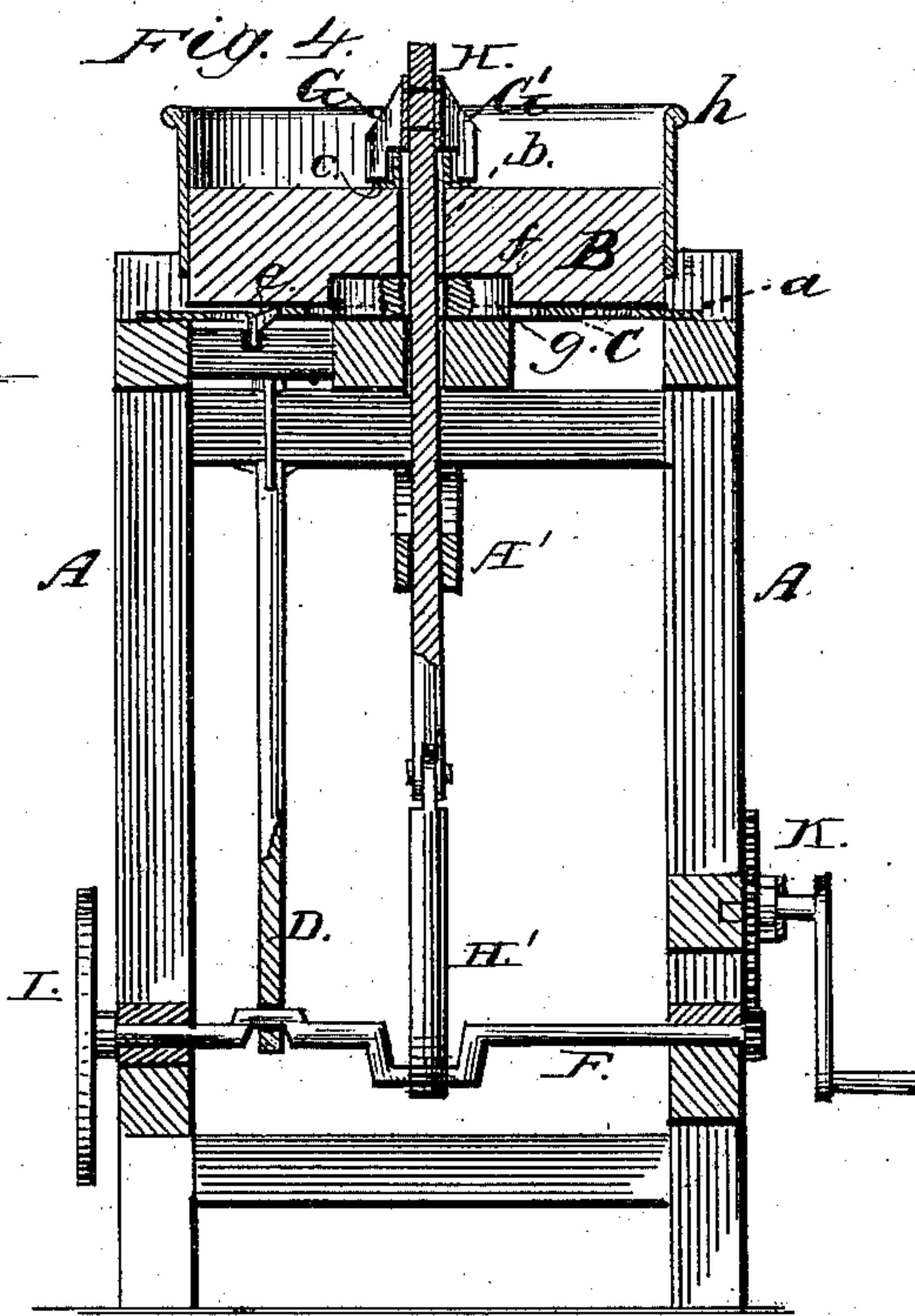
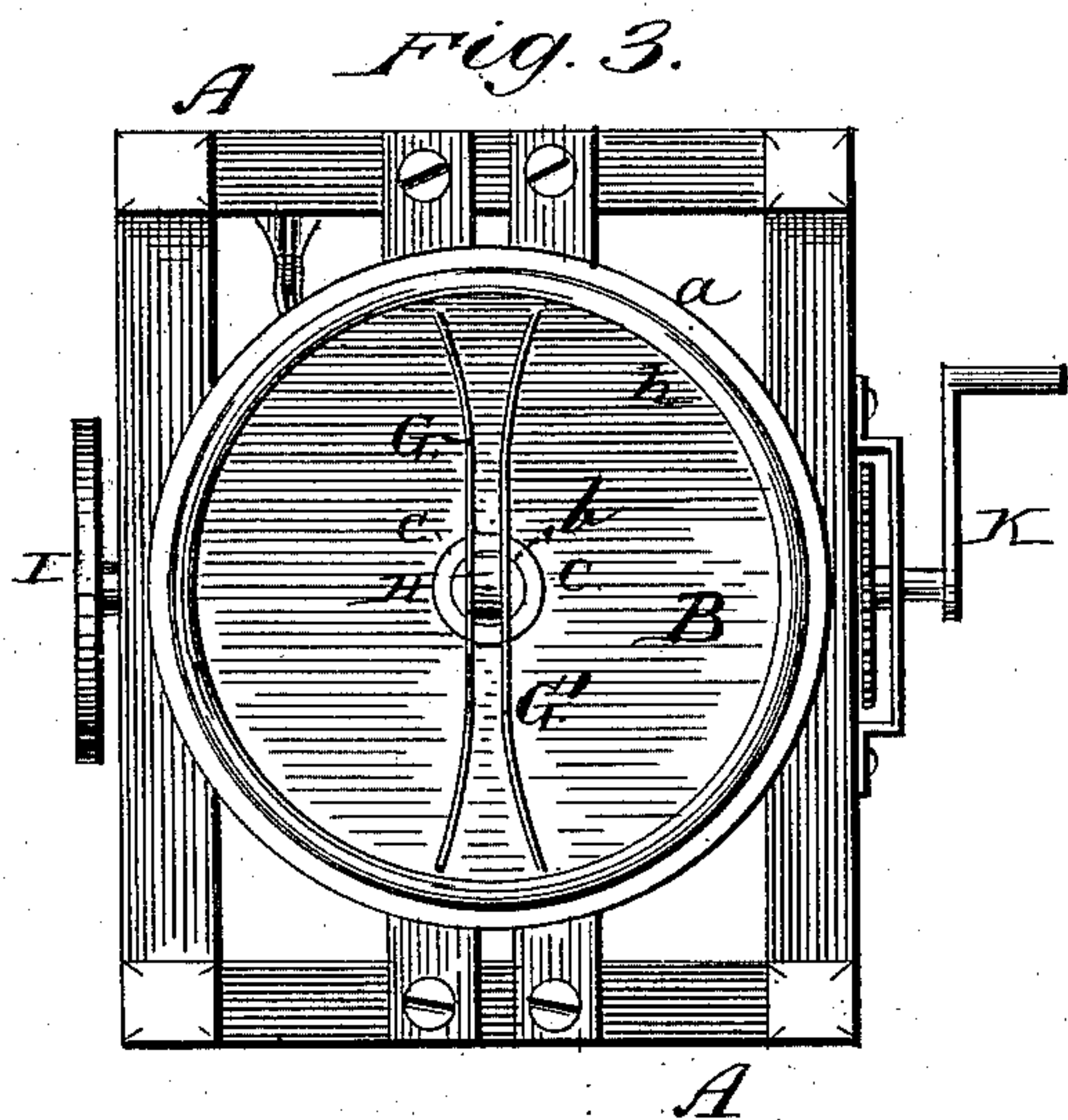
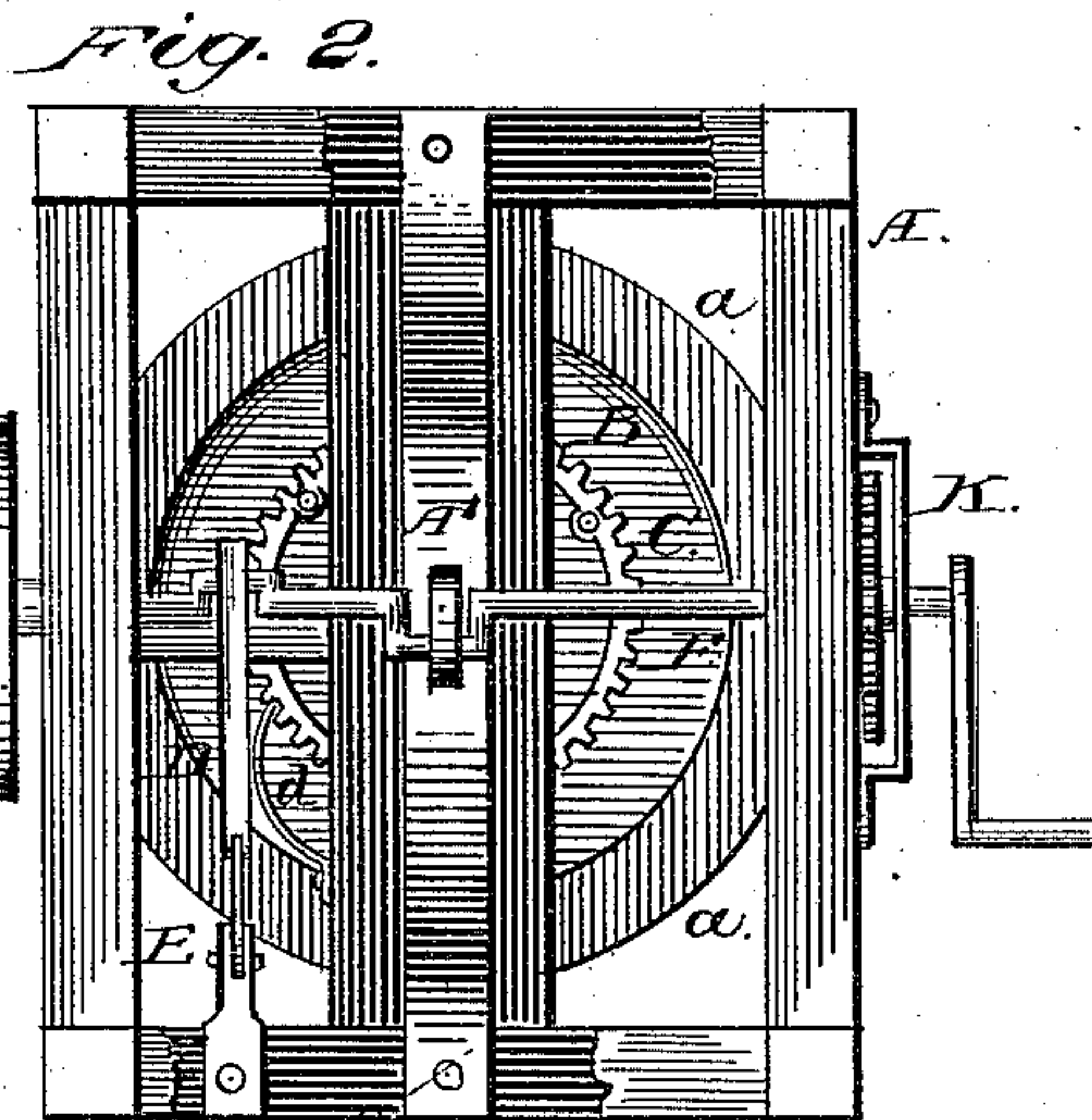
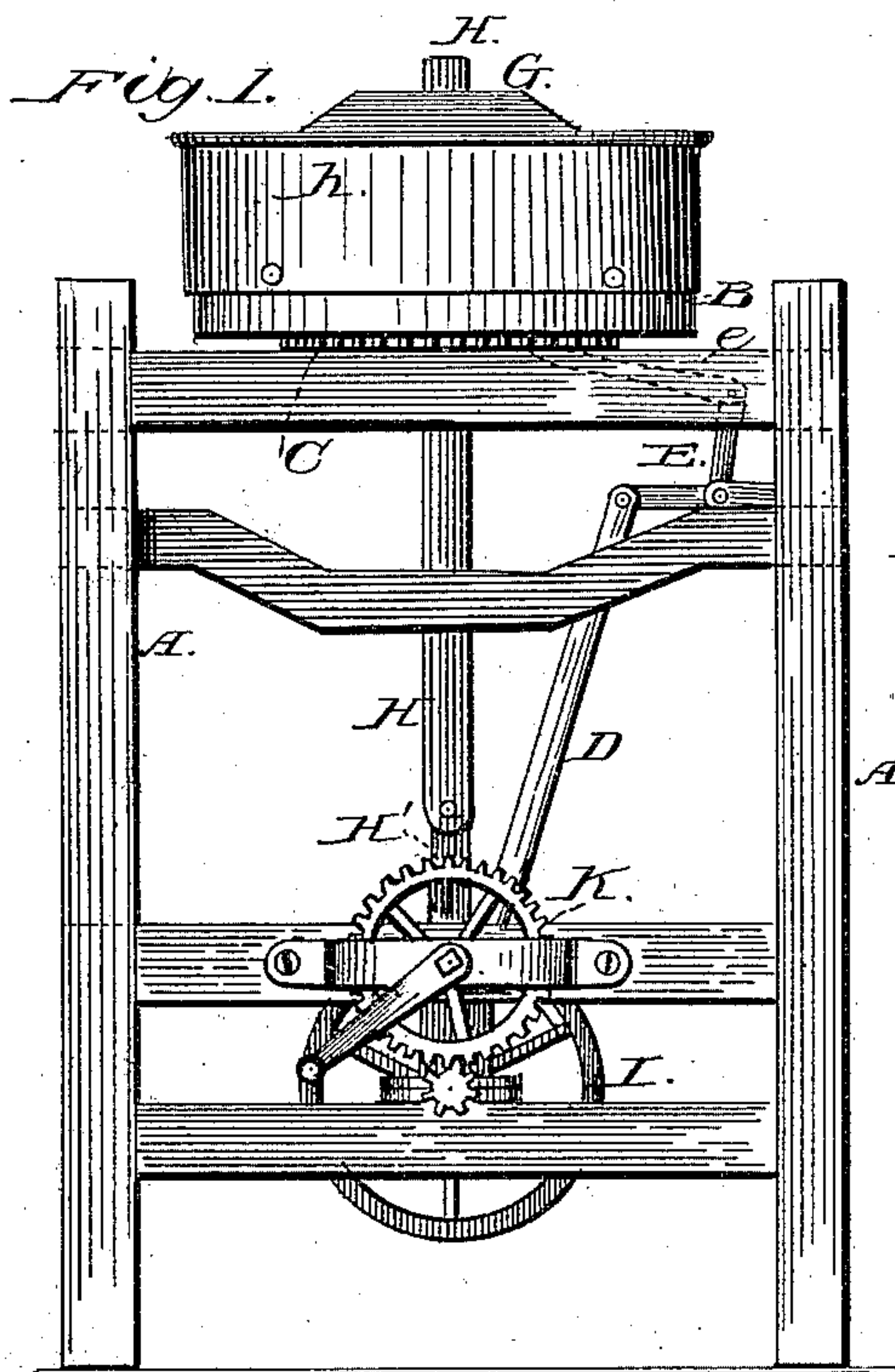


J. I. ROUGH.
Mince and Sausage Meat Chopper.

No. 222,079.

Patented Nov. 25, 1879.



Witnesses
Fred G. Dieterich
Geo. B. Madigan

Inventor
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UNITED STATES PATENT OFFICE

JOHN I. ROUGH, OF BUCHANAN, MICHIGAN.

IMPROVEMENT IN MINCE AND SAUSAGE MEAT CHOPPERS.

Specification forming part of Letters Patent No. 222,079, dated November 25, 1879; application filed August 11, 1879.

To all whom it may concern:

Be it known that I, JOHN IRVEN ROUGH, of Buchanan, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Mince and Sausage Meat Choppers; 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 being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation. Fig. 2 is a bottom view. Fig. 3 is a plan or top view, and Fig. 4 is a vertical section.

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

This invention relates to machines for chopping or mincing meat for sausages; and it consists in the combination, with an intermittingly-rotating cylindrical chopping-block and a pitman reciprocating vertically through its center, of a pair of cutters or chopping-knives affixed upon said pitman, and so constructed and arranged that in operating the machine they will gradually work the mince-meat toward the center, while at the same time the cutters, though operated simultaneously, will strike the meat at different points or places as it passes under them, substantially as hereinafter more fully set forth.

In the drawings, A A is the frame, upon the top of which rests an annular plate, *a*, supporting the intermittingly-rotating chopping-block B, which consists of a hard-wood cylinder having a central perforation, *b*, surrounded by a tubular guard or sleeve, *c*, which is attached by an annular flange to its upper side or face. Upon the under side of the cylinder B is secured a concentric ratchet-wheel, C, which engages with a spring-catch or dog, *d*, and pawl *e*, pivoted in the upper arm of a bell-crank, E, to the lower or horizontal arm of which is hinged a pitman, D, the lower end of which is coupled upon a crank-shaft, F. Thus by rotating shaft F an intermittingly-rotating motion is imparted to the circular chopping-block B by the pawl *e*, bell-crank E, and pitman D.

G G' are the cutters or chopping-knives, two in number, which are bolted by their middle on opposite sides of a pitman, H, passing through the central perforation, *b*, and sleeve *c* of the chopping-block. The under side of this has a circular concentric depression or recess, *f*, fitting over a circular disk or block, *g*, secured upon frame A in the center of the annular plate *a*, to prevent lateral play of the chopping-block, for which it forms, so to speak, a central pivot. Pitman H is hinged at its lower end to a link, H', pivoted upon the crank-shaft F, and passes through a slotted cross-bar, A', which forms a guide for the vertically-reciprocating pitman H.

The cylindrical chopping-block B is provided with a raised guard or annular flange, *h*, which rotates with it and forms, with the flat top or face of the block, a receptacle for the meat to be minced or chopped up. The shaft F is provided with a fly-wheel, I, and suitable gearing, K, for operating it.

It will be observed that the cutters or chopping-knives G G' are secured upon opposite sides of the head of the pitman H, so as to leave a narrow space between them, and that they diverge from each other from the center toward the periphery of the chopping-block.

By this construction and arrangement of the cutters the mince-meat is, as the block rotates, gradually drawn from the outer edge toward the center, regardless of what way the block rotates; and, again, the ends of the cutters G G', flaring from each other, prevent these from striking the mince-meat twice in the same place, as they would be apt to do if they were parallel to each other their entire length; hence, the meat is chopped up thoroughly and evenly, and in less time than with chopping-machines not provided with my improvement.

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

As an improvement in mincing and meat-chopping machines, the combination, with an intermittingly-rotating cylindrical chopping-block and a pitman reciprocating vertically through its center, and mechanism for operating said block and pitman, of a pair of cut-

ters or chopping-knives, G G', secured upon opposite sides of the pitman-head, but diverging or flaring gradually from each other from the center toward the periphery of the chopping-block, upon which they impinge, substantially as and for the purpose herein shown and specified.

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

JOHN IRVEN ROUGH.

Witnesses:

JESSE M. ROUGH,

WILLIAM P. CAUFFMAN.