

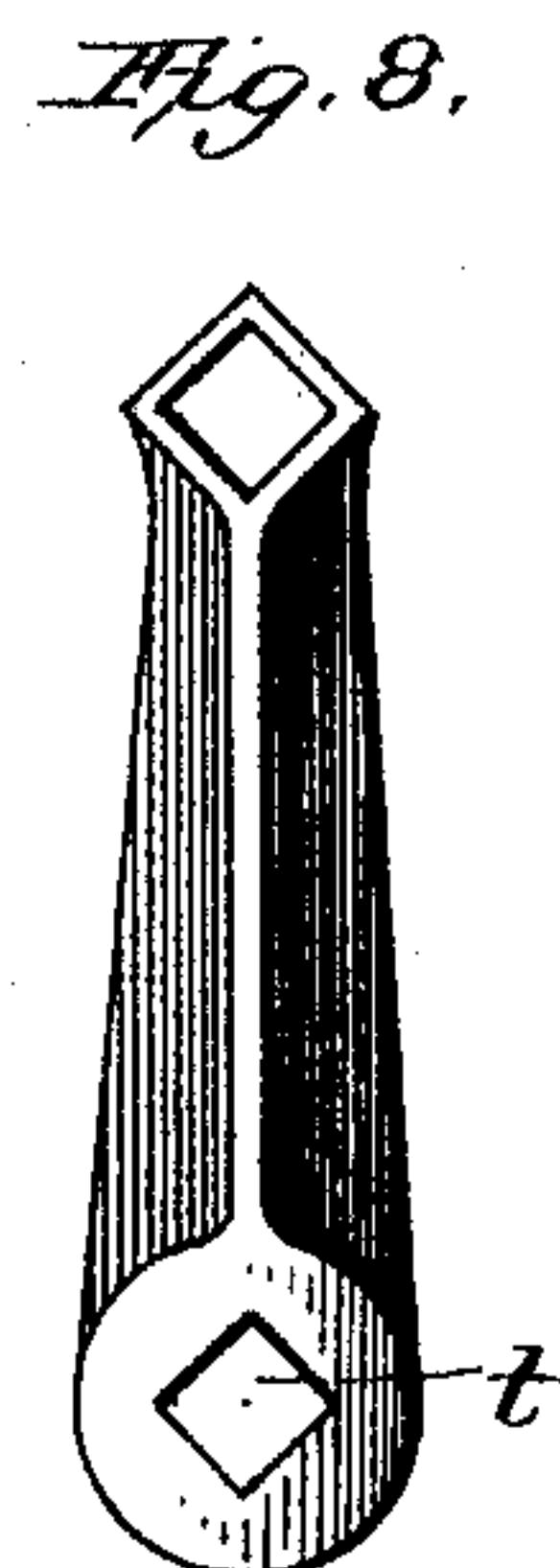
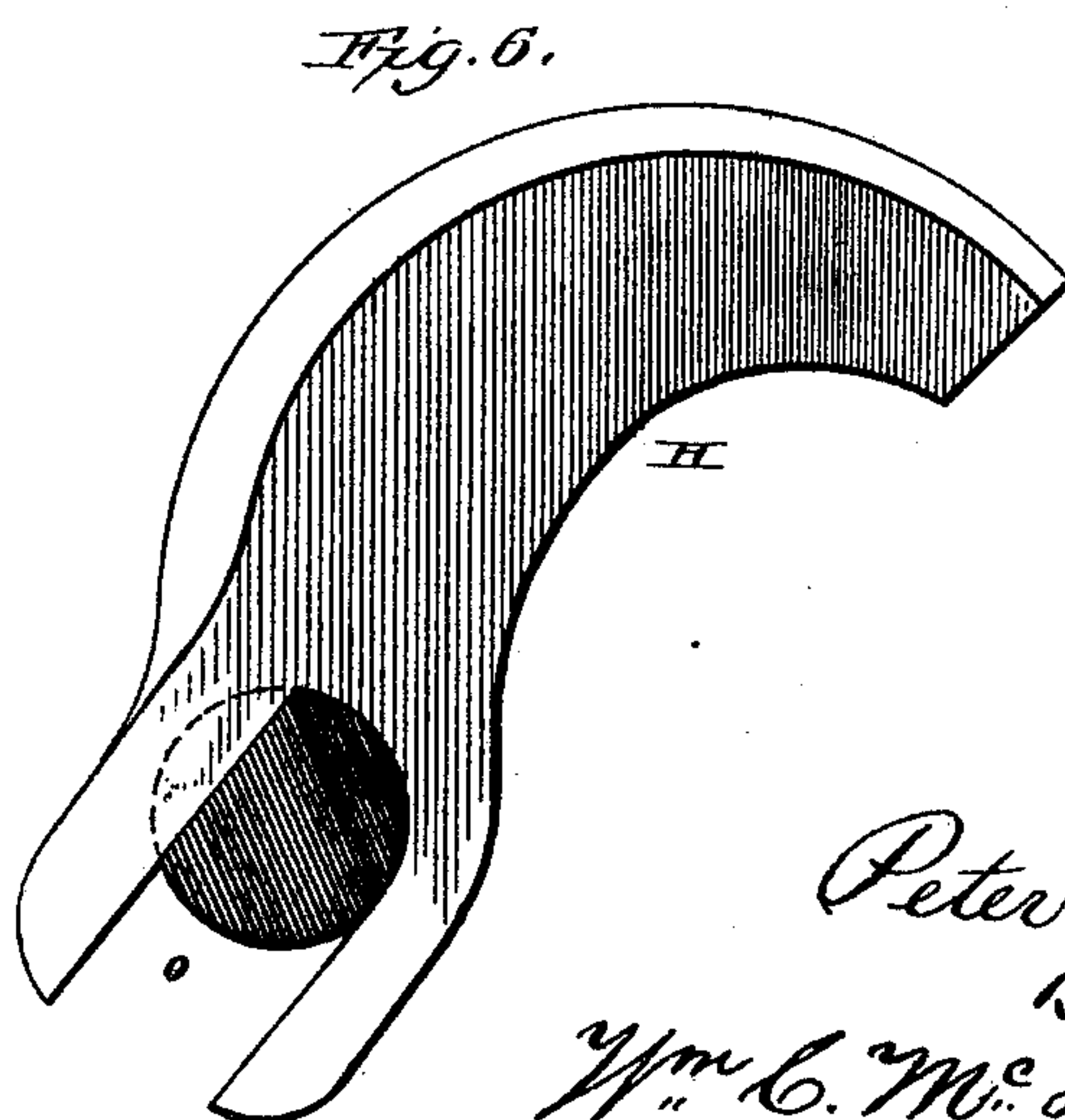
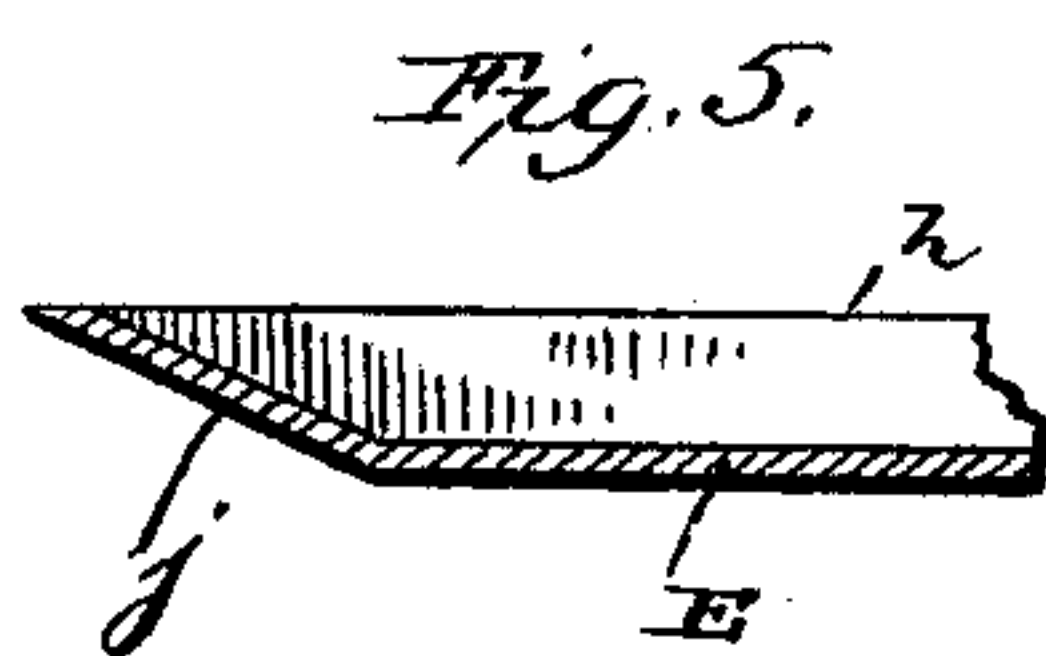
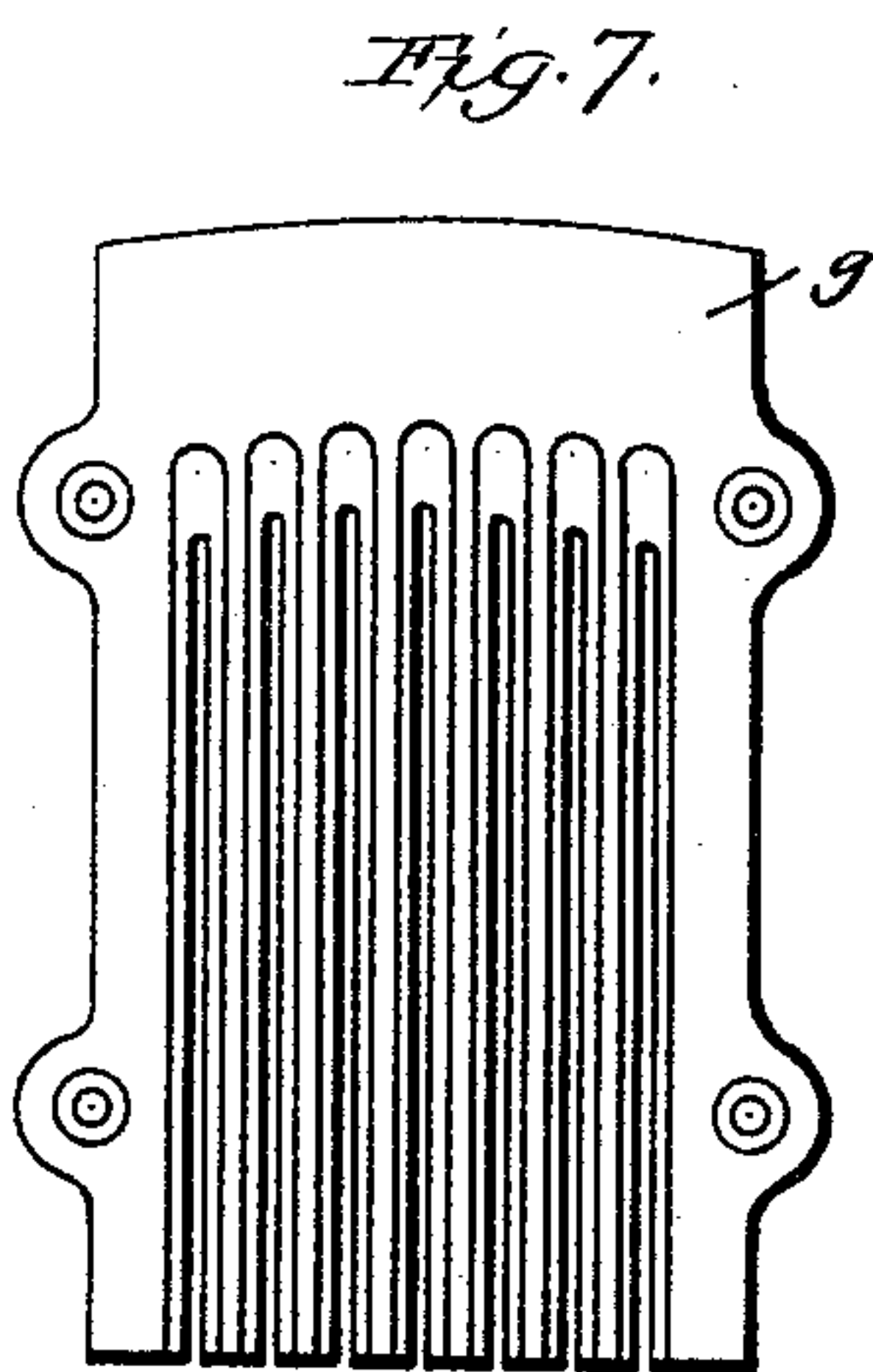
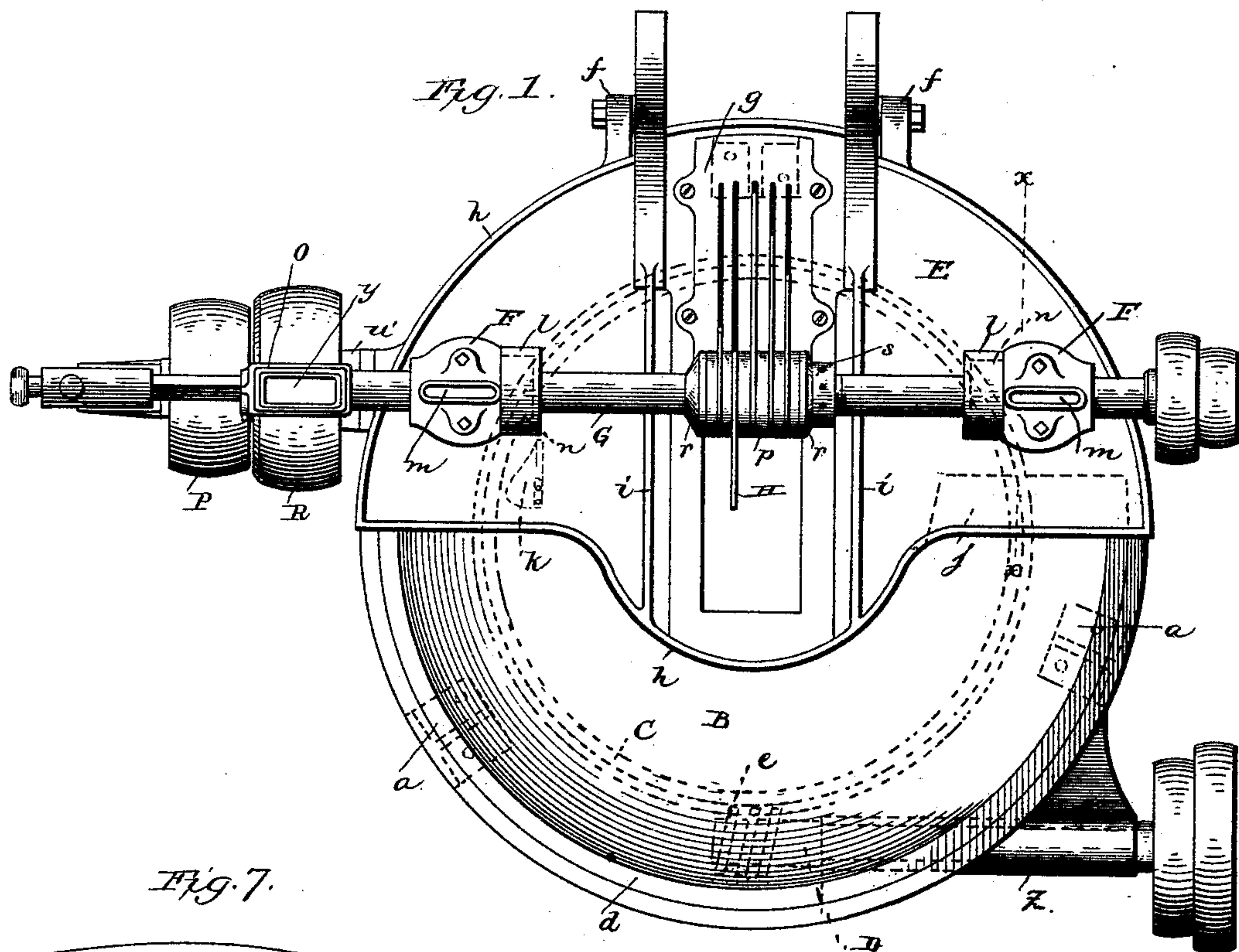
(No Model.)

2 Sheets—Sheet 1.

P. WILKES.
MEAT CUTTING MACHINE.

No. 414,131.

Patented Oct. 29, 1889.



WITNESSES

Edwin L. Yewell.

E. Everett Ellis

INVENTOR

Peter Wilkes

By Wm. C. McIntire Attorney

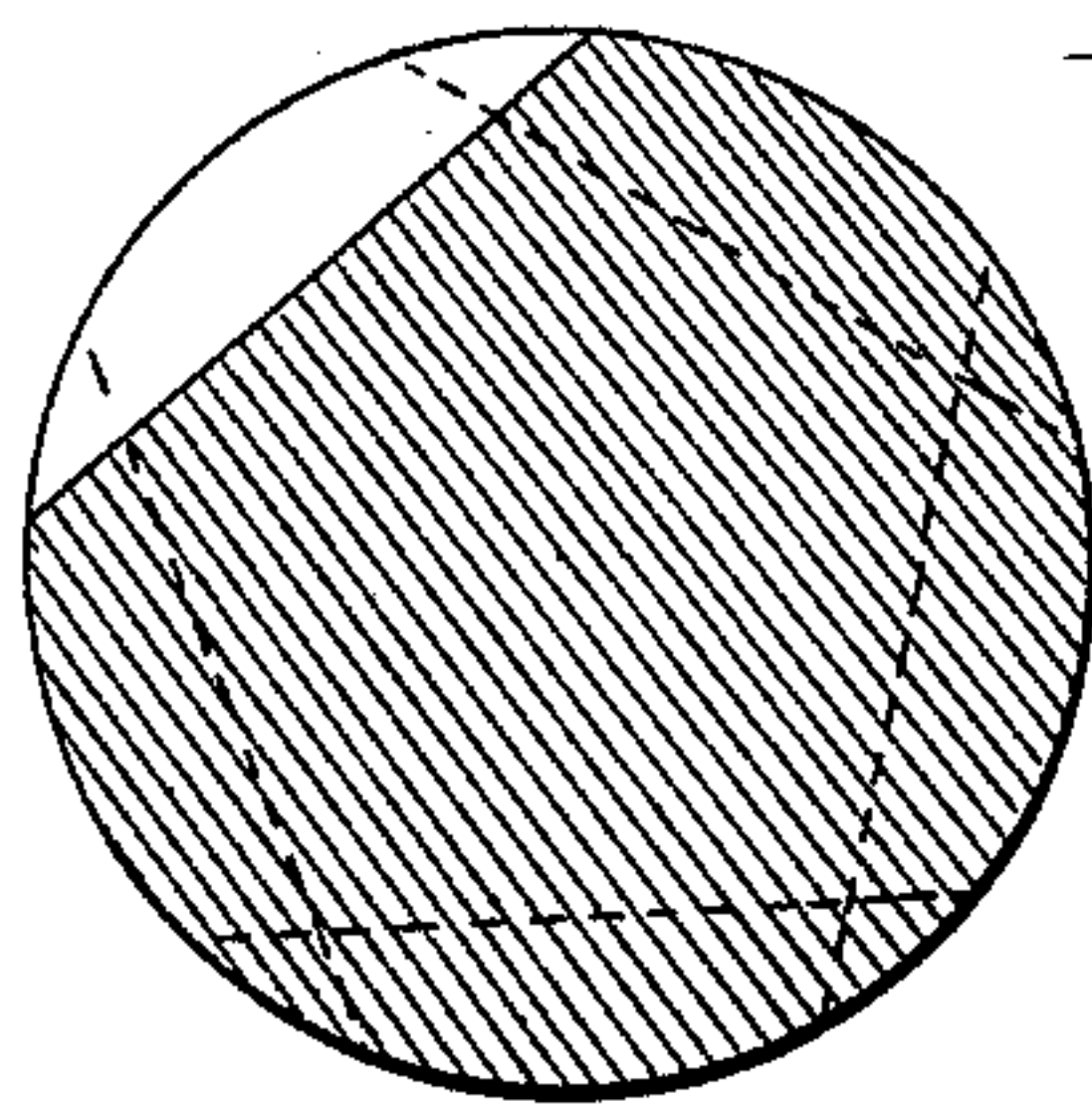
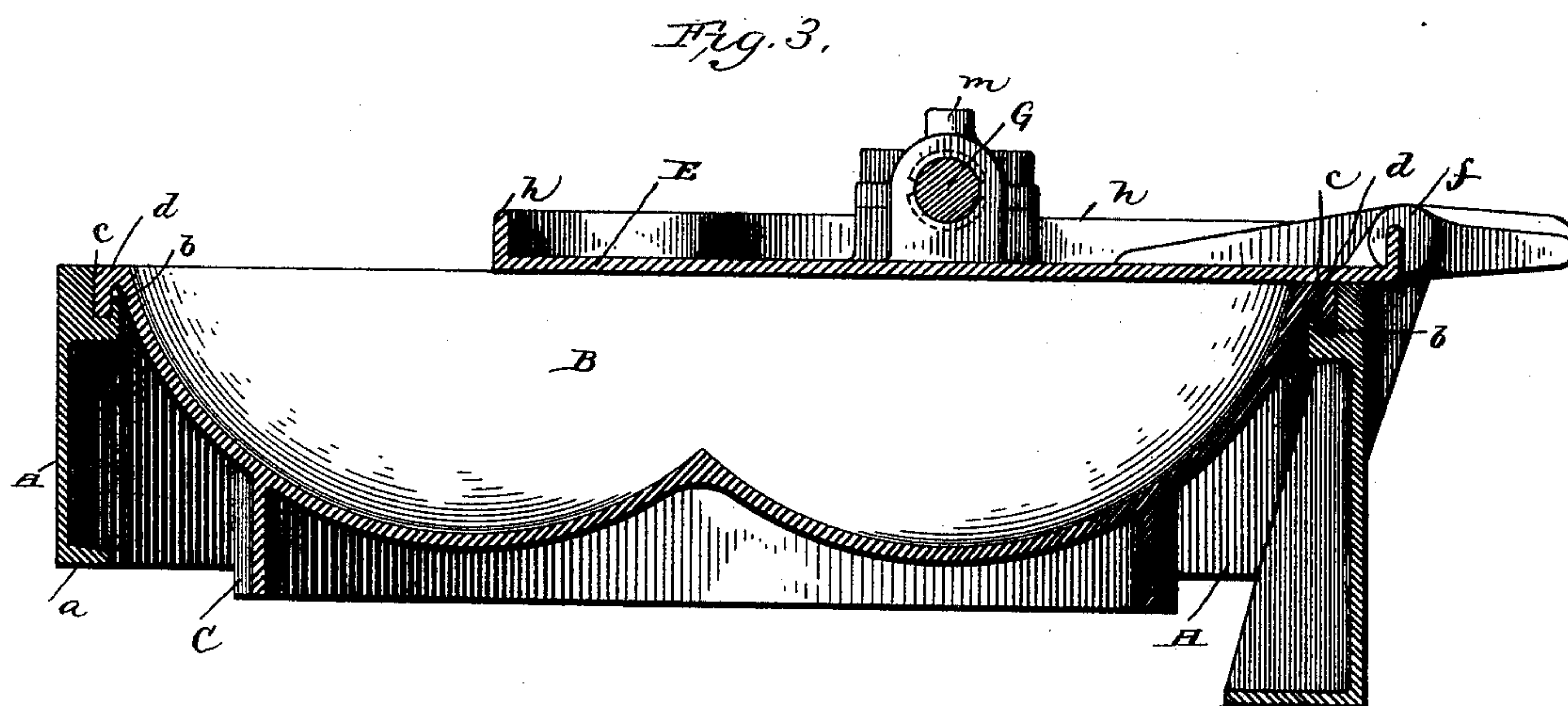
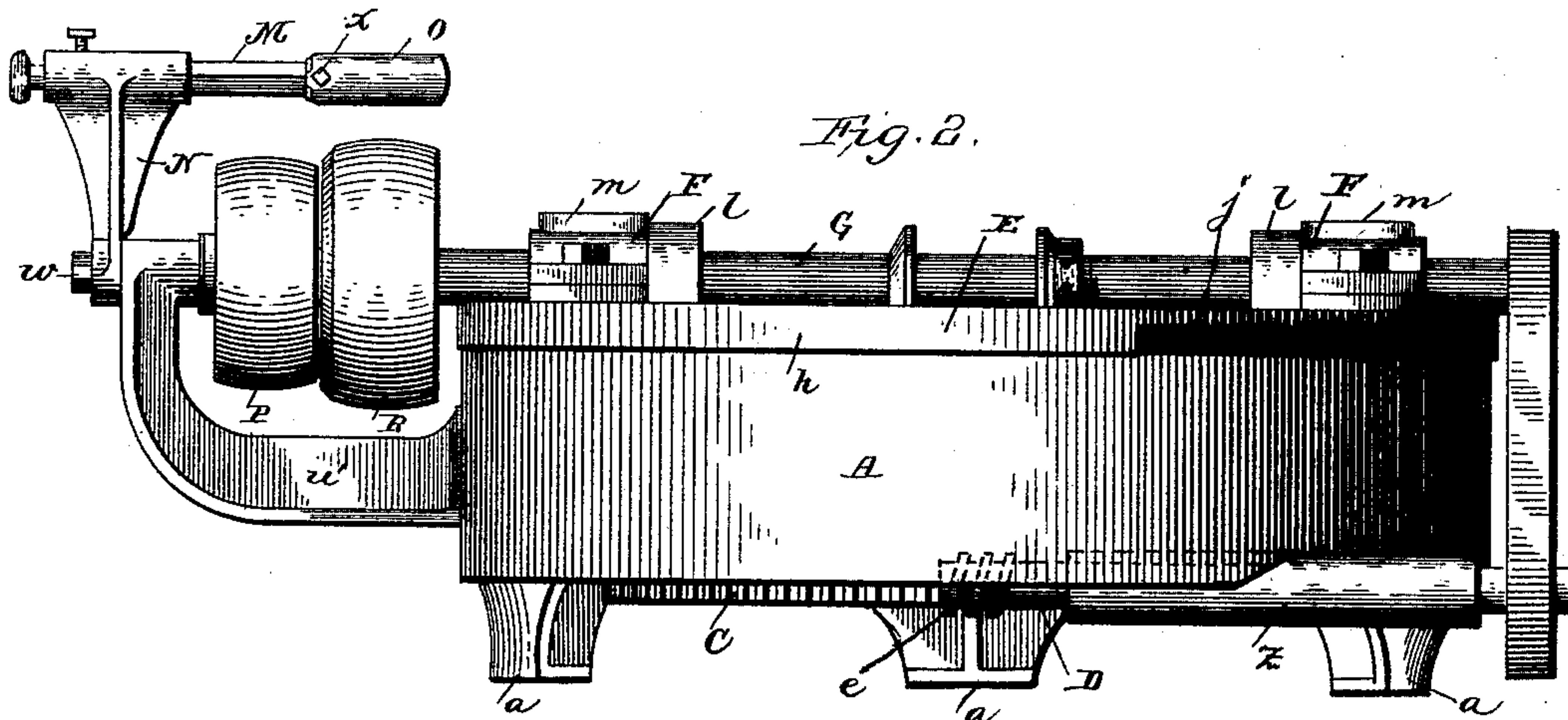
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UNITED STATES PATENT OFFICE.

PETER WILKES, OF TRENTON, NEW JERSEY.

MEAT-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 414,131, dated October 29, 1889.

Application filed July 27, 1888. Serial No. 281,191. (No model.)

To all whom it may concern:

Be it known that I, PETER WILKES, a citizen of the United States, residing at Trenton, New Jersey, have invented new and useful
5 Improvements in Meat-Cutting Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in meat-cutting machines; and it consists, substantially, in such
10 features of arrangement, construction, and combinations of parts as will hereinafter be more particularly described, and pointed out in the claims.

Figure 1 represents a top or plan view of
15 a meat-cutting machine embodying my improvements, and Fig. 2 is a front view thereof. Fig. 3 represents a central sectional view of the bowl and its supporting-frame, the same more clearly indicating their peculiar
20 construction. Fig. 4 is a sectional view in detail of the knife-shaft, the dotted lines representing the manner in which said shaft is kerfed or slotted to receive and hold the cutting-blades or knives. Fig. 5 is a sectional
25 detail on the line *xx* of the hinged lid to more clearly indicate the beveled form of its front edge at this point. Fig. 6 is a view in detail of one of the cutting-blades and its shaft with the shaft in section, the same indicating the construction of the knife and its
30 mode of fastening or attachment to the shaft. Fig. 7 is a view in detail of the usual slotted plate through which the knives or cutting-blades work. Fig. 8 is a view in detail of
35 the supporting-arm for the shifter-bar that carries the belt-guide.

Reference being had to the several parts by the letters marked thereon, A represents the frame, which is of round or circular con-
40 tour, and which is provided at suitable points with seats—such as indicated at *a*—for attachment of the supporting-legs, (not shown,) the said frame and seats being cast in one piece. This frame is also cast with an in-
45 ternal flange *b* entirely around its upper edge, and in which is turned a continuous groove *c* to form a bearing for the bowl, as well as an oil-well or lubricating-chamber in which an oil or lubricant is put to reduce friction
50 between the frame and the said bowl.

B represents a rotatable bowl that is formed

with a continuous bearing-flange *d* surround-
ing its upper edge, the same being turned
out exactly true in conformity to the groove
c of the frame A, in which groove the said
55 flange *d* is seated and rotates. Either cast
with or bolted to this bowl B on the under
side is a gear C, which meshes with a worm
e on the shaft D, through which construction
and arrangement the said bowl receives its
60 rotation. The shaft D is revolved by suit-
able belt-connection with the knife-shaft.

E represents the cover for the bowl, the
same being hinged to the frame, as at *f*, and
provided with the usual opening in its top
65 for the knives, over which opening is placed
the slotted plate *g*, of common construction.
Surrounding the entire edge of this cover is
a raised flange *h*, and extending from the
hinges to the forward edge of said cover are
70 two corresponding raised flanges *i i*, the pur-
pose of all of said flanges being to prevent the
oil thrown off by the knife-shaft from passing
or flowing over into the meat contained in the
bowl. At the point at which the meat is first
75 passed or fed into the bowl I give to the edge of
the lid or cover an inward slant or bevel, as
shown at *j*, by virtue of which the meat is pre-
vented from being crowded out onto the floor,
as happens with machines where this point
80 of the edge of the lid is perfectly straight.
To the opposite side of the lid, on its inner or
under side, I locate or arrange the plow *k* on
the underside of cover, and which is designed
to turn the meat over as the bowl is being ro-
85 tated. I desire to here state that the use of
this plow has been common heretofore, except
that its former location has always been on
the opposite side or edge of the lid to which
I arrange it. I have found that with the former
90 arrangement the meat comes in contact with
the back of the plow or shoe instead of the
front, and the result is the meat is thrown or
forced out of the bowl; but with my present
arrangement this does not happen. The lid
95 is formed or provided with suitable bearings
F F for the knife-shaft G, each of which is
provided with a cap or cup *m* for containing
a lubricating-oil for said shaft, and *l l* repre-
sent continuous overhanging flanges that
100 are either cast with or bolted fast to the caps
m, the said flanges extending over the collars

n n, that are arranged upon the shaft *G* for preventing endwise displacement. The purpose of the flanges *l l* is to prevent the oil thrown off from the shaft centrifugally from flying over into the meat in the bowl, such oil as is thrown off being collected on the top of the bowl-cover, from which it may be wiped from time to time by the operator.

As a convenient manner of attachment or fastening of the cutting-blades or knives to their shaft, I form in the shaft a number of slots or kerfs corresponding to the number of knives employed, each slot being made in the shaft at an angle to the other—such, for instance, as is shown at Fig. 4 in dotted lines. This arrangement gives to the knives when inserted the spiral arrangement desirable in this class of machines, each knife projecting from the shaft at a different point of its sides. The knives *H* are preferably of cimeter form, and are formed in their lowerends with a slot *o* of a width in the proportions of five-sixteenths of an inch less than the diameter of the shaft, such being the proportions of depth of the slots or kerfs. By this construction it will be seen that when the knives are slipped over the shaft in the manner indicated at Fig. 6 one side or edge of the slots *o* will be received into the kerf in the shaft, and the knife thereby securely fastened or attached. This arrangement also permits of the separate removal of either of the knives for the purpose of sharpening or otherwise. Between the knives I arrange on the shaft the collars *p*, which retain them in place, and for the purpose of tightening up such collars I use a collar *r*, having a thread working on a thread on the shaft, such collar *r* also having holes *s* drilled therein to receive a spanner-wrench for turning the same.

To obviate having to set the machine to the accommodation of any particular direction from which the driving-belt may run or extend—that is to say, whether from either side of, beneath, or below the shaft—I employ a square shifter-bar *M*, that is supported by an arm *N*, having a squared opening *t*, to fit the stud *u*, on which the loose pulley *P* runs, the said arm being held in place by a nut *w*, the slacking of which permits the arm to be turned in either direction to the required extent, and it is by the turning of this arm that the accommodation to the direction of belt is effected. The stud *u* is held by a bracket *u'*, either cast with or bolted to the side of frame *A*.

Carried on the inner end of the shifter-bar and adjustable axially by a set-screw *x* is a belt-guide *O*, the same having an opening *y*, through which the belt passes in an obvious manner and is guided.

P represents a loose pulley working on stud *u* independently of the drive-pulley *R*,

and is for the purpose of permitting the raising of the lid without being interfered with by the driving-belt.

It should be remarked that the worm *D*, which operates the bowl, works in a box *Z*, cast with or secured to the frame *A*, the said box being kept filled with a suitable lubricant.

From the foregoing description it is thought that the construction and operation of my invention will be thoroughly understood and that the objects thereof are fully accomplished. It will be seen, also, that various changes could be resorted to in the minor details of construction and arrangement without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a meat-cutting machine, the bowl *B*, formed around its upper edge with a continuous depending bearing-flange and having the hinged lid or cover formed around its edges with a continuous raised flange and across its top with corresponding flanges, substantially as described.

2. In a meat-cutting machine, the combination, with the supporting-frame formed around its upper edge with a continuous flange in which is formed a groove, of the bowl *B*, formed around its upper edge with a flange fitting in said groove, and provided on its under side with a continuous surrounding worm-gear, said bowl being also provided with the hinged lid formed at one point of its front edge with the bevel indicated at *j*, substantially as described.

3. In a meat-cutting machine, the combination, with the supporting-frame, of the bowl *B*, having the hinged lid provided with the raised flanges and the inward slant *j*, and means for rotating said bowl, substantially as described.

4. In a meat-cutting machine, the hinged lid or cover formed around its edges with a continuous raised flange and having two corresponding flanges extending across the same, substantially as shown, and for the purpose described.

5. In a meat-cutting machine, the hinged lid having the raised flanges and formed at one point of its front edge with an inward slant or bevel, as indicated at *j*, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

PETER WILKES.

Witnesses:

E. P. WAIT,
M. IDA PHARES.