

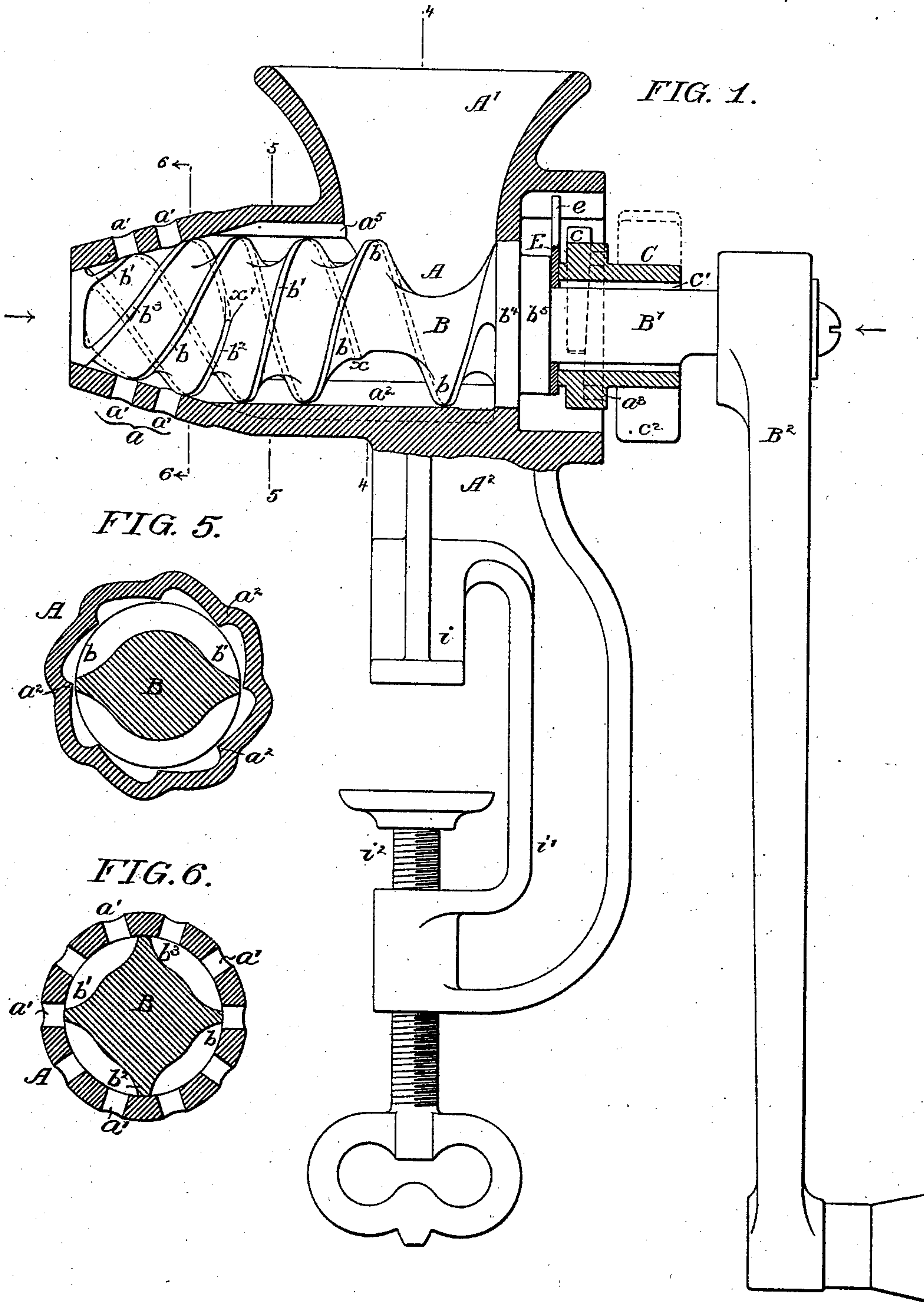
(No Model.)

2 Sheets—Sheet 1.

J. W. BROWN, Jr.  
MEAT CHOPPER.

No. 591,323.

Patented Oct. 5, 1897.



Witnesses:  
Hamilton D. Turner  
Will. A. Barr

Inventor:  
John Wilson Brown, Jr.  
by his Attorneys  
Horsman & Howard

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FIG. 2.

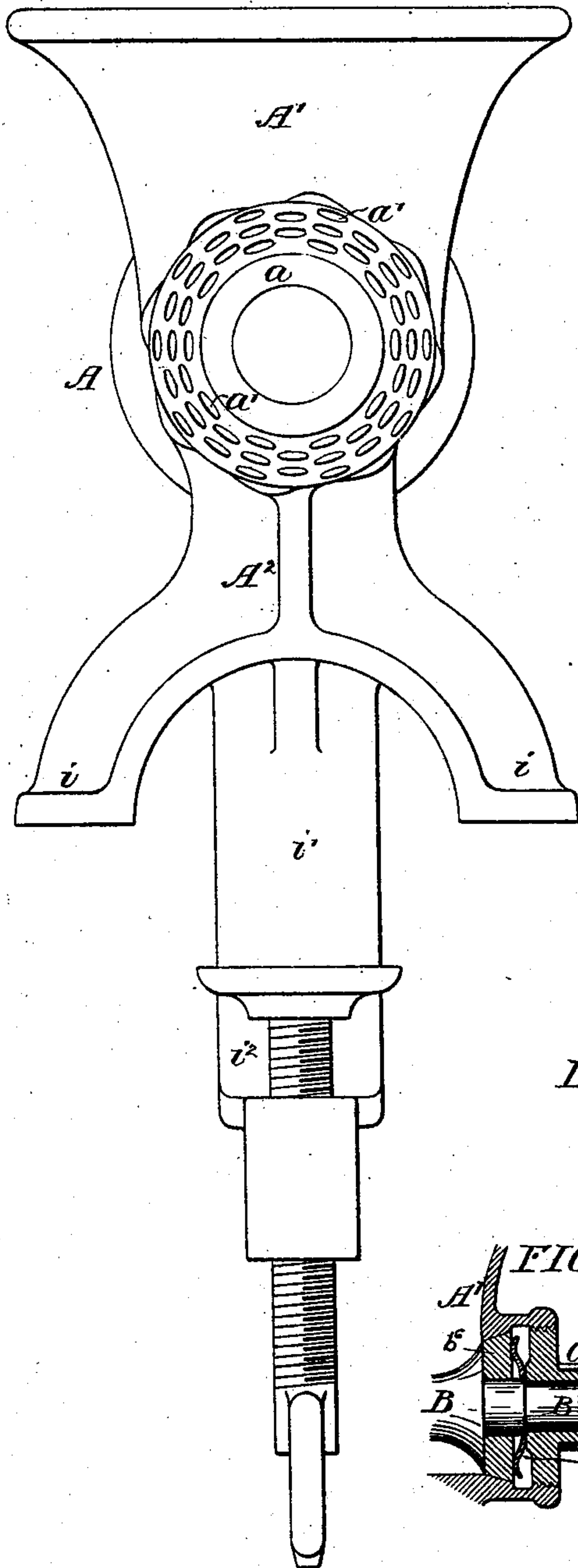


FIG. 4.

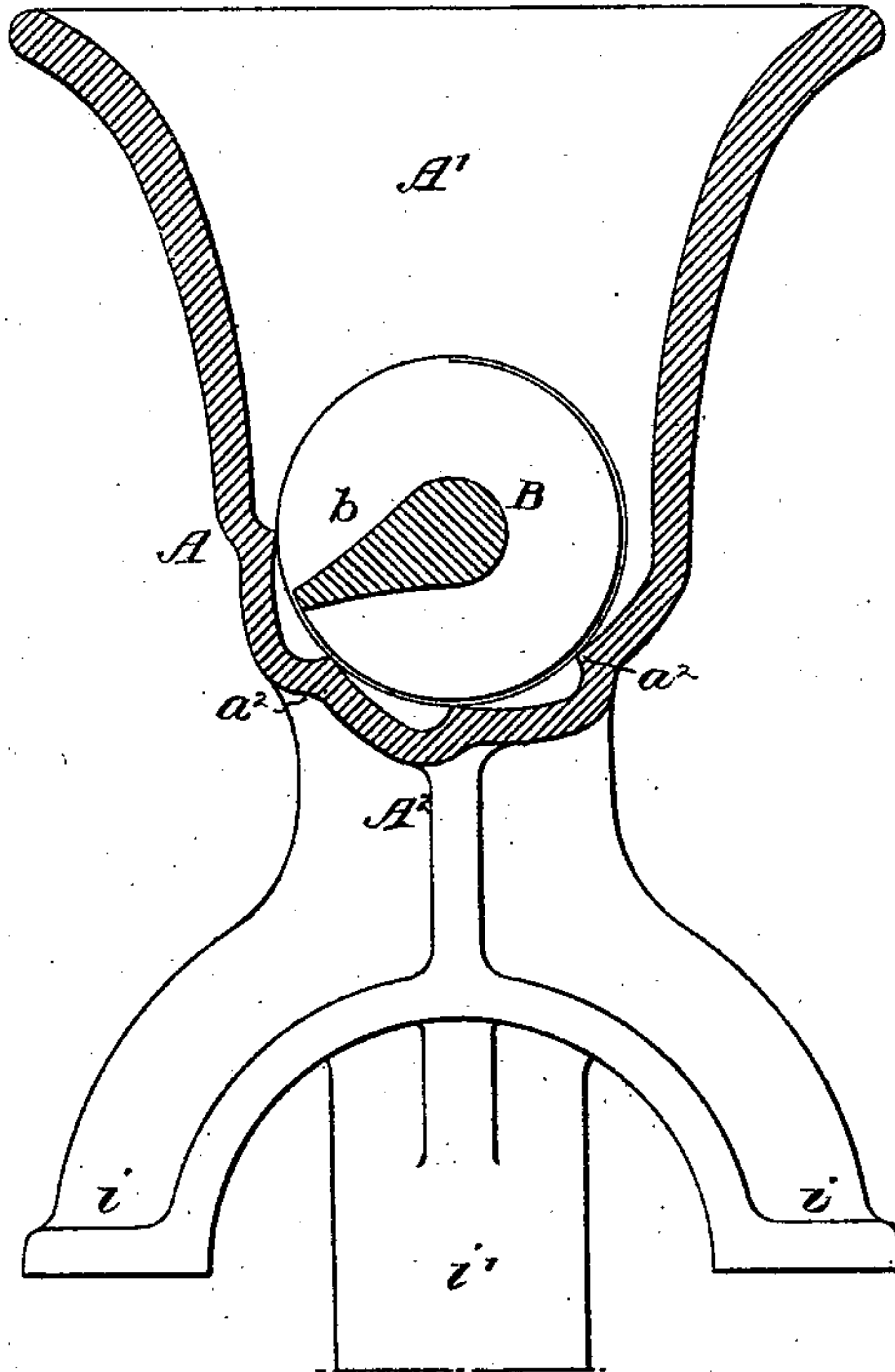
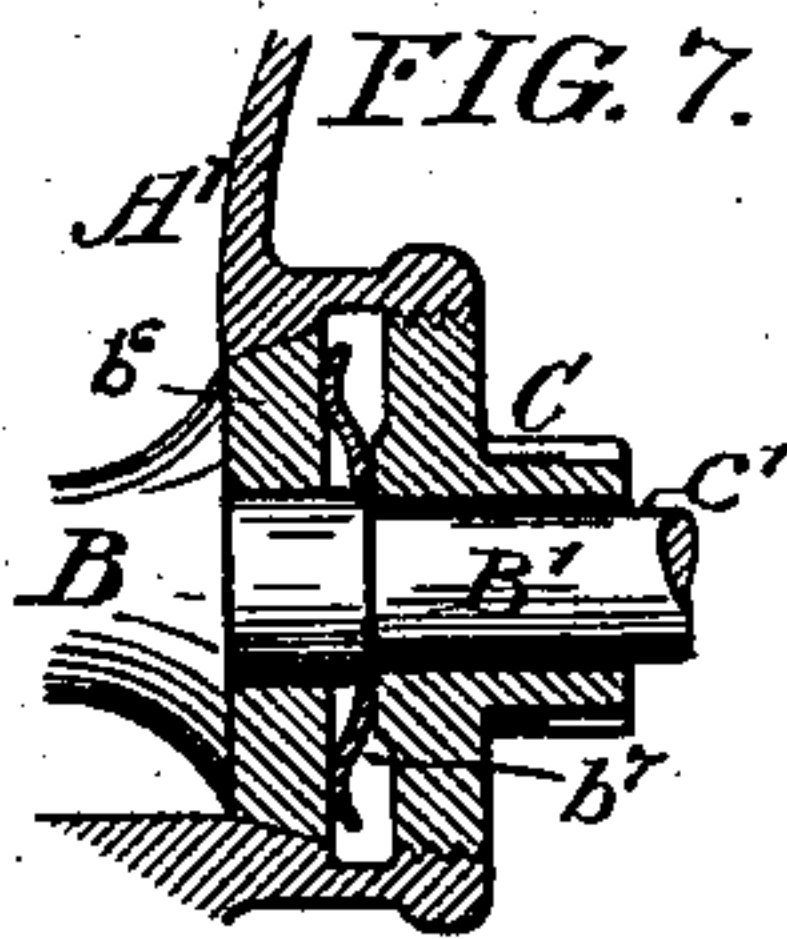
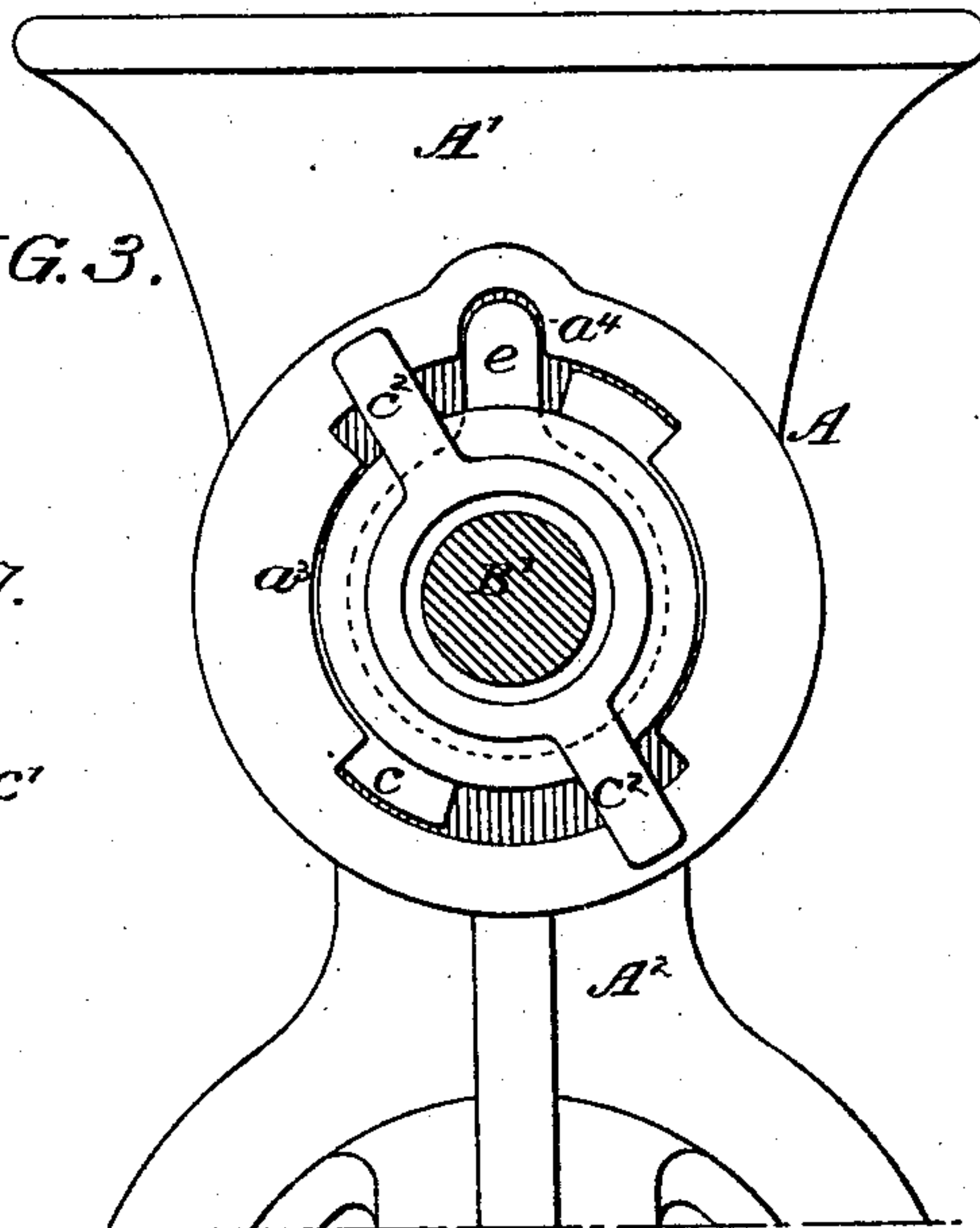


FIG. 3.



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# UNITED STATES PATENT OFFICE.

JOHN WILSON BROWN, JR., OF PHILADELPHIA, PENNSYLVANIA.

## MEAT-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 591,323, dated October 5, 1897.

Application filed January 21, 1896. Serial No. 576,331. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WILSON BROWN, Jr., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Meat-Choppers, of which the following is a specification.

This invention relates to certain improvements in machines for cutting meat into small fragments.

10 The invention further relates to the special construction of the screw.

The object of the invention is to provide for the neat fit of the screw within the casing, so that it can be made true without much machinery and so that when the parts wear the screw will not be forced out of line, the bearing of the screw being entirely in the casing.

In the accompanying drawings, Figure 1 is a side elevation of the meat-cutting machine with the casing in section. Fig. 2 is an end view looking in the direction of the arrow 1, Fig. 1. Fig. 3 is an end view looking in the direction of the arrow 2, Fig. 1. Fig. 4 is a transverse section on the line 4 4, Fig. 1. Fig. 5 is a section on the line 5 5, Fig. 1. Fig. 6 is a section on the line 6 6, Fig. 1; and Fig. 7 is a view of a modification.

30 A is the casing of the meat-cutter, having a tapered end  $a$ , which has a number of perforations  $a'$  for the escape of the cut meat. The case has a series of longitudinal ribs  $a^2$ , some of which extend only to the hopper  $A'$ , while others extend to the rear of the case.

35 B is a combined feed-screw and cutter, formed as clearly shown in Fig. 1. The main body of the screw fits loosely the ribbed portion of the casing, but the tapered end of the screw fits against the tapered portion of the casing, and the threads of this portion of the screw form cutters which act in conjunction with the edges of the perforations  $a'$  to cut the meat.

45 The solid portion  $b^4$  of the screw, which is larger in diameter than the screw itself, is slightly tapered to fit snugly the rear of the casing and prevents any juice escaping through this end of the meat-cutter. The screw, therefore, has two bearings—one in the tapered portion of the casing and the other in the rear of the casing. Extending from the

rear of the screw is a shaft  $B'$ , to which is secured the handle  $B^2$ .

It will be noticed that the screw-thread  $b$  extends from the rear of the screw up to the forward end, while the thread  $b'$  extends from the point  $x$  near the front edge of the hopper to the forward end of the screw, and the two threads  $b^2 b^3$  extend from  $x'$ , which is the point where the casing commences to taper, to the forward end of the screw, the threads  $b^2 b^3$  commencing at opposite sides, as shown. Thus while the meat is subjected to the action of a single thread, as it enters the casing from the hopper it is moved forward slowly by the threads  $b b'$ , and the pitch of the threads of the screw increase when they reach the tapered portion of the casing, and the meat fed forward will enter the holes  $a'$  in the tapered portion and will be cut off by the threads of the screw.

In order to hold the screw in position within the casing and against the tapered portion thereof, a follower C is provided, having two tapered lugs  $cc$ , which tend to force the screw into the casing, and on the casing are two beveled lugs  $a^3$ , back of which the lugs of the follower pass. The casing is cut away, as shown clearly in Fig. 3, and when the follower is turned and its lugs are in line with these openings the screw can be readily removed with the follower thereon, so that the parts will not be lost. Any wear of the screw against the casing can be taken up by tightening the follower.

In order to prevent the follower being detached by the turning of the ring, a washer E is mounted between the follower and the enlargement  $b^5$  on the screw. This washer has a projection  $e$ , which enters a cavity  $a^4$  in the casing, Fig. 3, which prevents the washer from turning with the screw, so that, while this washer does not interfere with the longitudinal movement of the screw, it will prevent the follower from turning after once being set.

It will be noticed that the opening  $c'$  in the follower through which the shaft  $B'$  of the screw passes is considerably larger than the shaft, so that the entire bearing of the screw is within the casing and not in a loose part, which is apt to move out of alinement. The



follower has suitable extensions  $c^2$ , by which it can be turned.

Depending from the casing A is an extension  $A^2$ , having two feet  $i i$  and a leg  $I'$ , which is turned at the bottom so as to be in a position between the two feet, and in this leg is a set-screw  $i^2$ , by which the machine can be rigidly clamped to a table.

In some instances the rear bearing of the casing may be removable with the screw, as shown in Fig. 7, being in the form of a disk  $b^6$ , having a tapered periphery, which when the screw is in place rests in the tapered opening of the casing. A spring  $b^7$  may be inserted between the disk and follower and adapted to the threaded opening in the casing, as shown in said figure, instead of being provided with lugs.

I claim as my invention—

1. The combination in a meat-chopper, of the casing made in one piece and having a hopper, a perforated and tapered forward end and an open rear end, a combined feed-screw and cutter adapted to be inserted into the casing through the opening in the rear end, and having a shank to which the handle is secured and a follower adapted to the open end of the casing and having an opening greater in diameter than the shank of the feed-screw, the follower being free from contact with the shank, and serving only as a means of forcing the cutting portion of the feed-screw against the perforated and tapered front end of the casing, the combined feed-screw and cutter having its bearing solely in the casing, substantially as described.

2. The combination in a meat-chopper, of the casing made in one piece and having an open rear end, a hopper, a straight body with straight longitudinal ribs therein, and a perforated and tapered front end, said ribs terminating at the perforated end portion, with a combined feed-screw and cutter, having its bearing within the casing, and a follower adapted to the open rear end of the casing and acting to force the cutting portion of the feed-screw against the perforated portion of the casing, substantially as described.

3. The combination in a meat-cutter, of the casing having a straight barrel and a perforated and tapered end portion, a combined feed-screw and cutter having its bearing solely within the casing, the threads of said screw being arranged substantially as shown, one thread extending throughout the length of the screw, another thread extending from the hopper forward and the two remaining threads commencing at the point where the case tapers and extending to the end, substantially as described.

4. The combination in a meat-chopper, of the casing having a hopper, a perforated and tapered forward end and an open rear end, a combined feed-screw and cutter tapered at the forward end and having a solid portion  $b^4$  at the opposite end, the tapered portion of the feed-screw fitting the tapered portion of the casing and the solid portion of the feed-screw fitting snugly the rear of the casing, the main body of the screw fitting loosely the ribbed portion of the casing, a follower adapted to hold the screw in position in the casing and means for turning the screw, substantially as described.

5. The combination in a meat-chopper, of the casing having a hopper, a perforated and tapered forward end and a tapered opening at the rear end, a combined feed-screw and cutter adapted to be inserted in the casing through the opening in the rear end, said feed-screw having a tapered end adapted to the tapered portion of the casing and a tapered solid portion  $b^4$  adapted to the tapered opening in the rear of the casing, the main body of the screw loosely fitting the casing, a shank on the feed-screw adapted to fit the handle and a follower for holding the feed-screw in position within the casing, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN WILSON BROWN, JR.

Witnesses:

WILL. A. BARR,  
JOS. H. KLEIN.