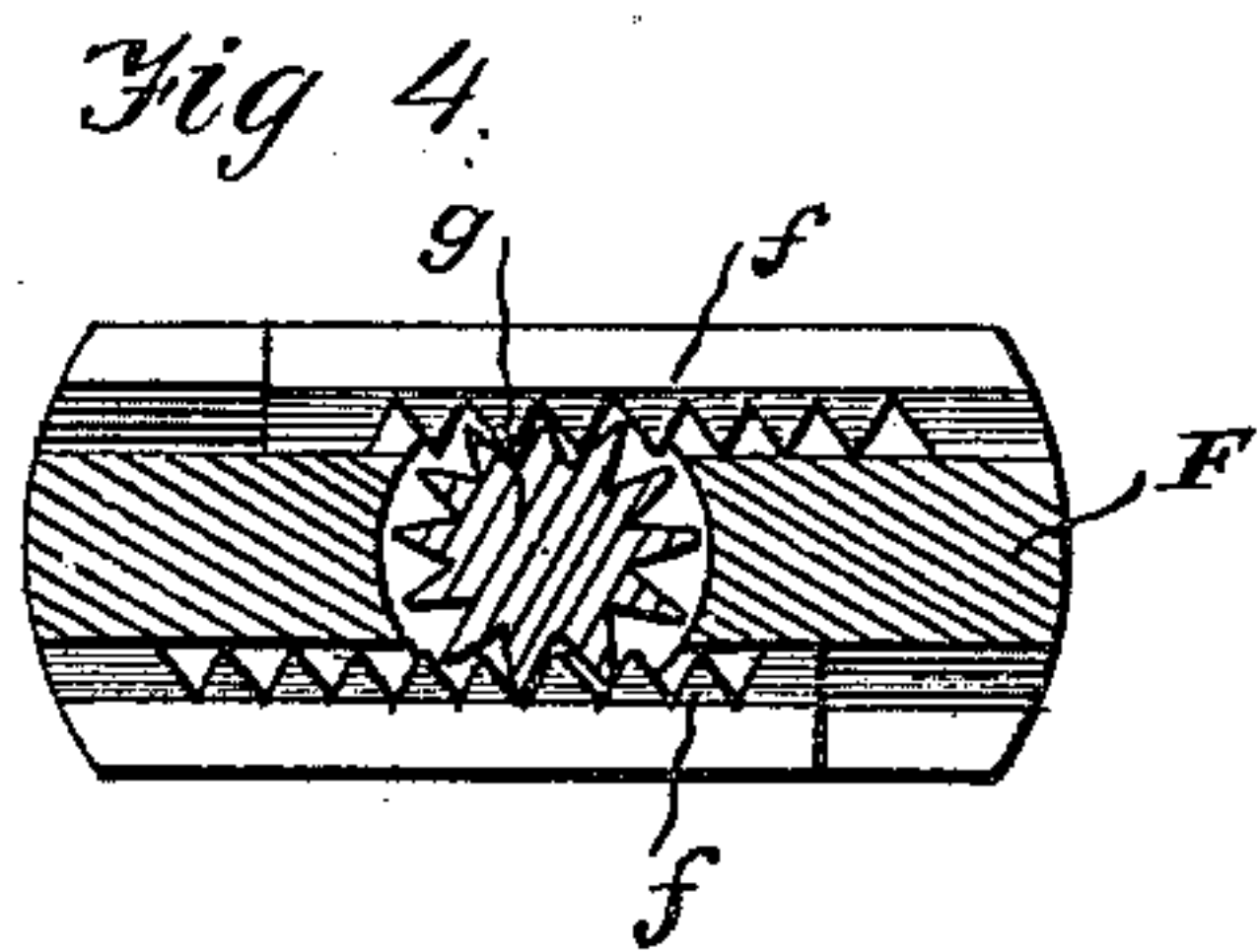
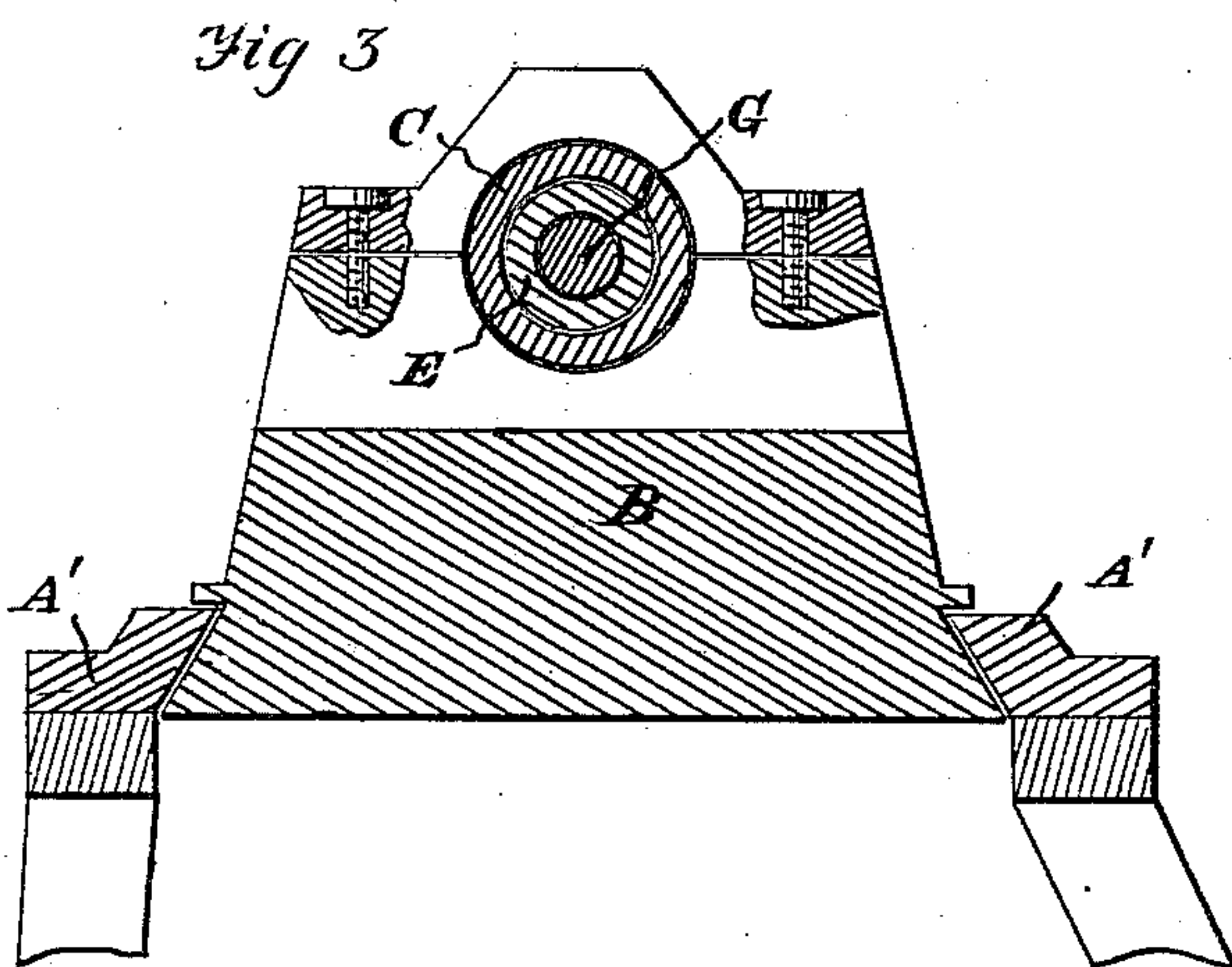
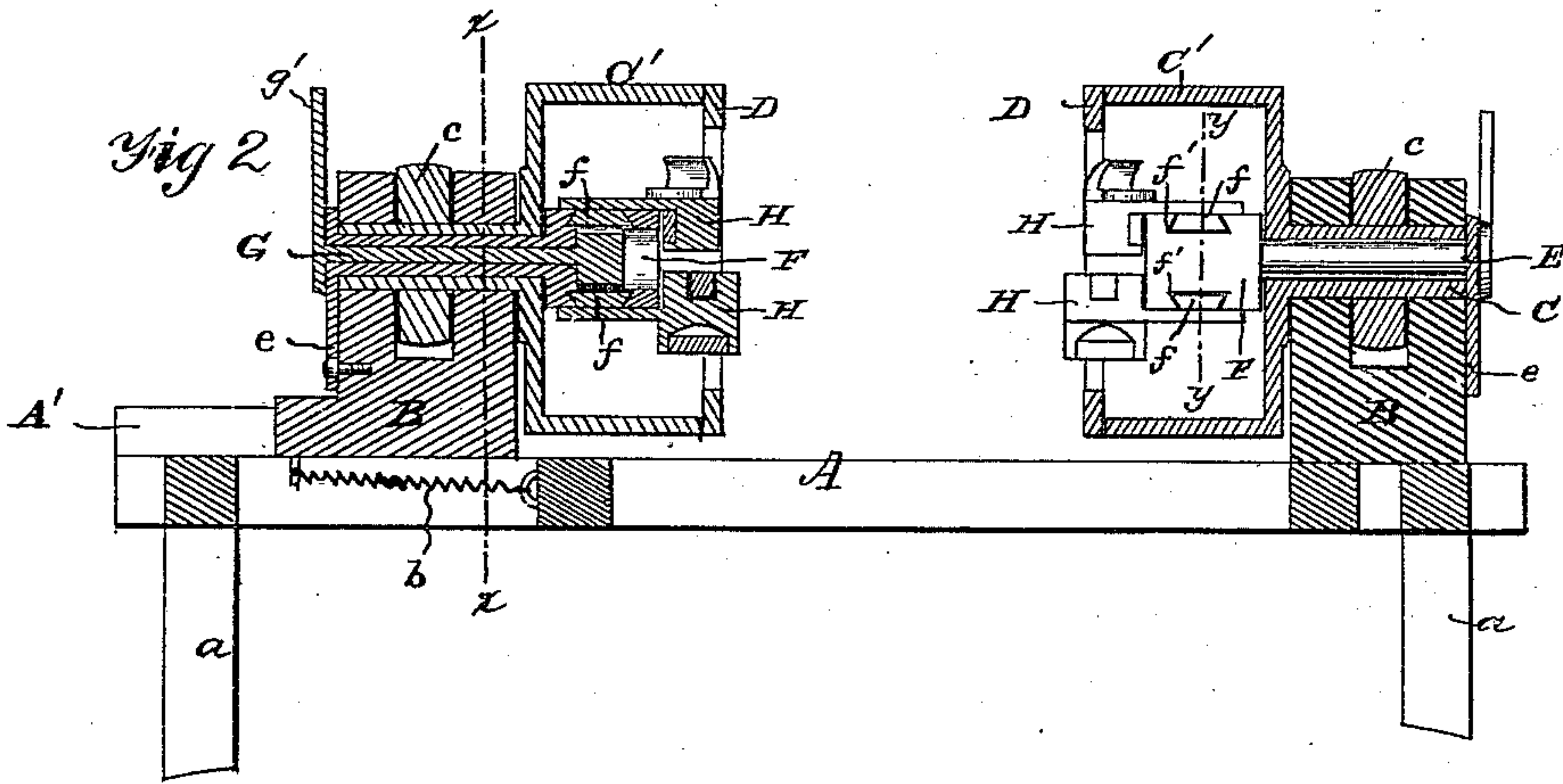
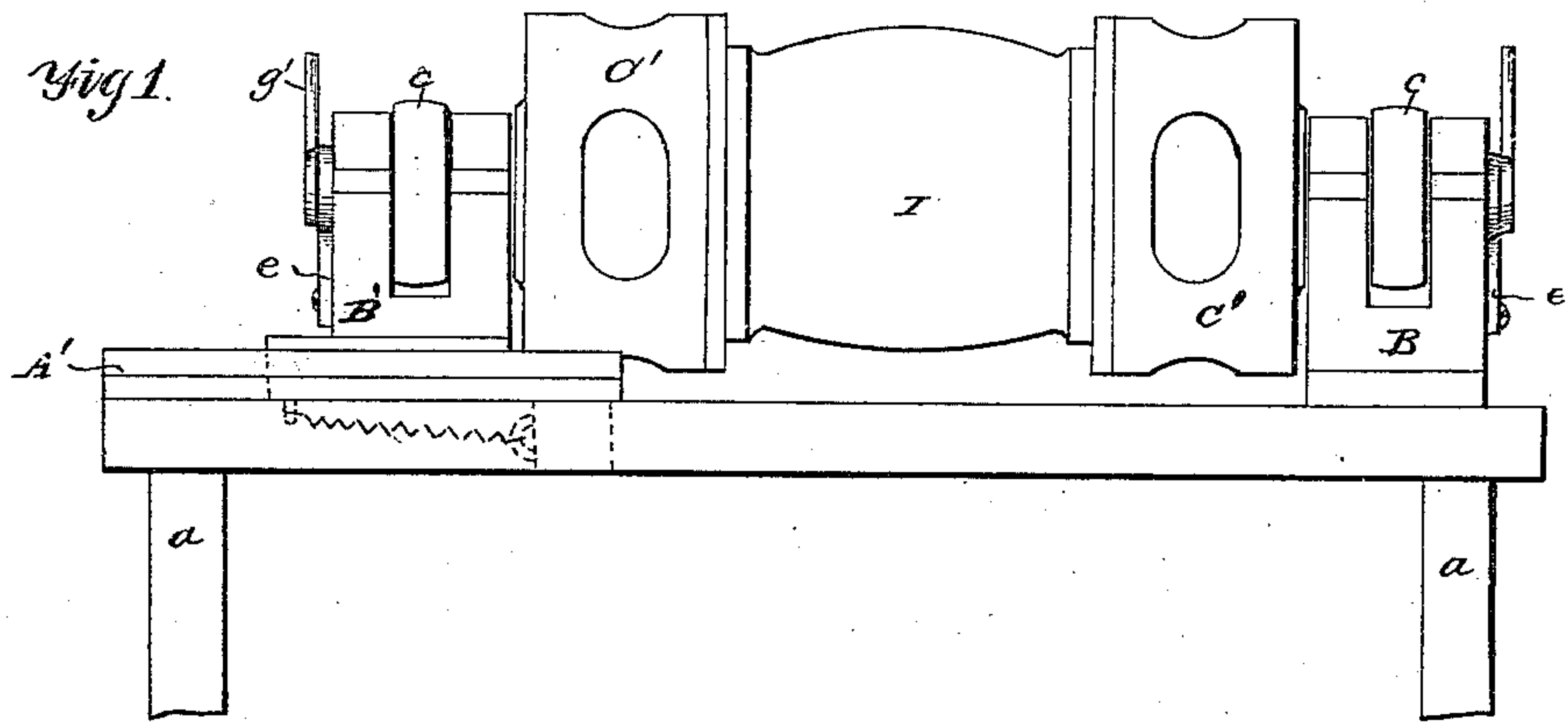


W. L. FIELD.
Machine for Crozing Barrels.
No. 211,898. Patented Feb. 4, 1879.



Witnesses
H. Bradford
James H. Lange.

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UNITED STATES PATENT OFFICE

WALLACE L. FIELD, OF WEST DE PERE, WISCONSIN.

IMPROVEMENT IN MACHINES FOR CROZING BARRELS.

Specification forming part of Letters Patent No. **211,898**, dated February 4, 1879; application filed July 29, 1878.

To all whom it may concern:

Be it known that I, WALLACE L. FIELD, of West De Pere, in the county of Brown and State of Wisconsin, have invented certain new and useful Improvements in Machines for Chamfering, Howeling, Leveling, and Crozing Barrels; 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, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved machine for chamfering, howeling, leveling, and crozing barrels. Fig. 2 is a longitudinal vertical section. Fig. 3 is a section through the line *xx* of Fig. 2; and Fig. 4 is a section through the line *yy* of Fig. 2, showing the arrangement of the spur-wheel and ratchets.

Corresponding parts in the several figures are denoted by similar letters of reference.

My invention appertains to certain improvements in machines for chamfering, howeling, leveling, and crozing barrels; and it consists of a stationary hollow shaft inclosed within a revolving hollow shaft, which receives a rock-shaft provided on its inner end with a pinion or spur-wheel, meshing with ratchets sliding in a block, and on its outer end with a hand-lever; and, secondly, of a detachable ring or face-plate attached to the free ends of the chucks or heads, substantially as hereinafter more particularly set forth and claimed.

In the annexed drawings, A refers to a suitable rectangular frame having legs *a*, firmly fastened to one end of which is a pillow-block, B, upon which is journaled a hollow shaft, C, provided with a pulley, *c*, to receive a belt running from a suitable motor. The middle portion of the block B is cut or hollowed out to allow the pulley *c* to revolve.

Secured to the inner end of the revolving shaft C is a head or chuck, C', adapted to receive and hold one end of a barrel. To provide for working on barrels of different sizes, I detachably fasten to the chuck C' a face-

plate, D, of the size desired, they being made in sizes corresponding with the different sizes of barrels.

Inclosed within the hollow shaft C is a second hollow shaft, E, to the outer end of which is secured an arm or projection, *e*, which is fastened to the pillow-block B, to prevent the said shaft from revolving with the shaft C. Connected to the inner end of the hollow shaft E is a rectangular hollow block, F, having ratchet-bars *f f* disposed, one on the upper and the other on the lower surface of said block, and sliding in grooves *f' f'*. These ratchet-bars mesh with the spur-wheel *g*, inclosed within the block F. This spur-wheel *g* is connected to the rock-shaft G, inclosed within the shaft E, and is operated by the hand-lever *g'*, attached to the outer end of said rock-shaft.

Secured to the ratchet-bars *f f* are blocks H H, which are adapted to receive the different tools employed in chamfering, howeling, leveling, and crozing barrels.

The pillow B' on the opposite end of the frame A slides upon a sliding frame, A', secured to the said frame A, and is held inwardly by means of the spring *b*. I is the barrel held in the heads or chucks C'.

Operation: After the barrel is adjusted in the chucks or heads, motion is communicated to the hollow shaft C by means of either or both of the pulleys *c*, thus revolving the barrel when one or the other of the blocks H H, carrying the proper tools, is moved out against the barrel by means of the hand-lever *g'* operating the spur-wheel *g* through the medium of the rock-shaft G.

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

1. The stationary shaft E, having the block F, provided with ratchet-bars *f f* and blocks H H, in combination with the rock-shaft G, having the spur-wheel *g* and lever *g'*, substantially as and for the purpose set forth.

2. The stationary shaft E, having the block F, with ratchet-bars *f f*, rock-shaft G, with spur-wheel *g* and lever *g'*, in combination with the hollow shaft C, having the pulley *c* and

head or chuck C', substantially as and for the purpose set forth.

3. The chuck or head C', with a detachable ring or face-plate, D, disposed at an angle thereto, in combination with the inclosed cutter-head, substantially as and for the purpose set forth.

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

WALLACE L. FIELD.

Witnesses:

T. E. SEDGWICK,
PATRICK COUNIHAN.