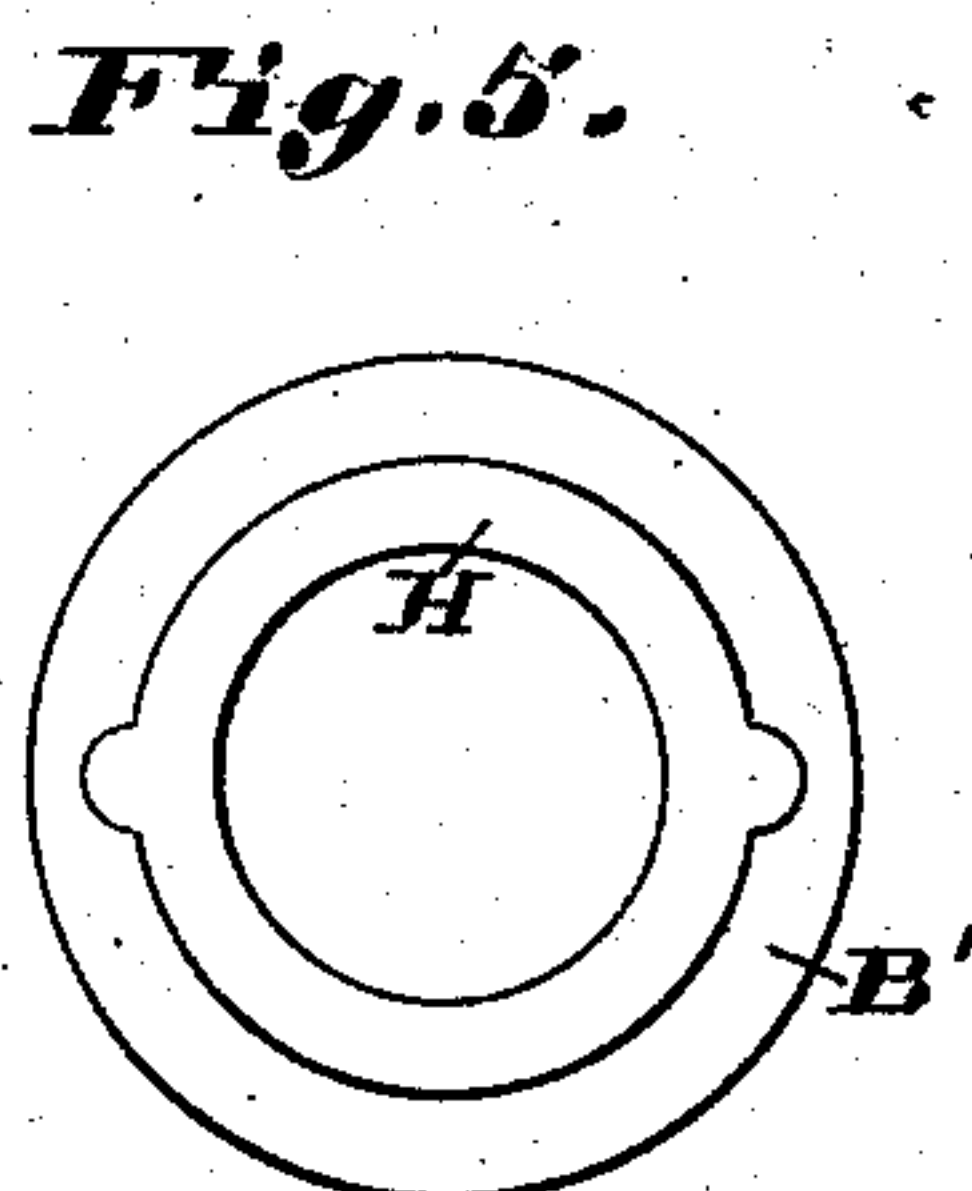
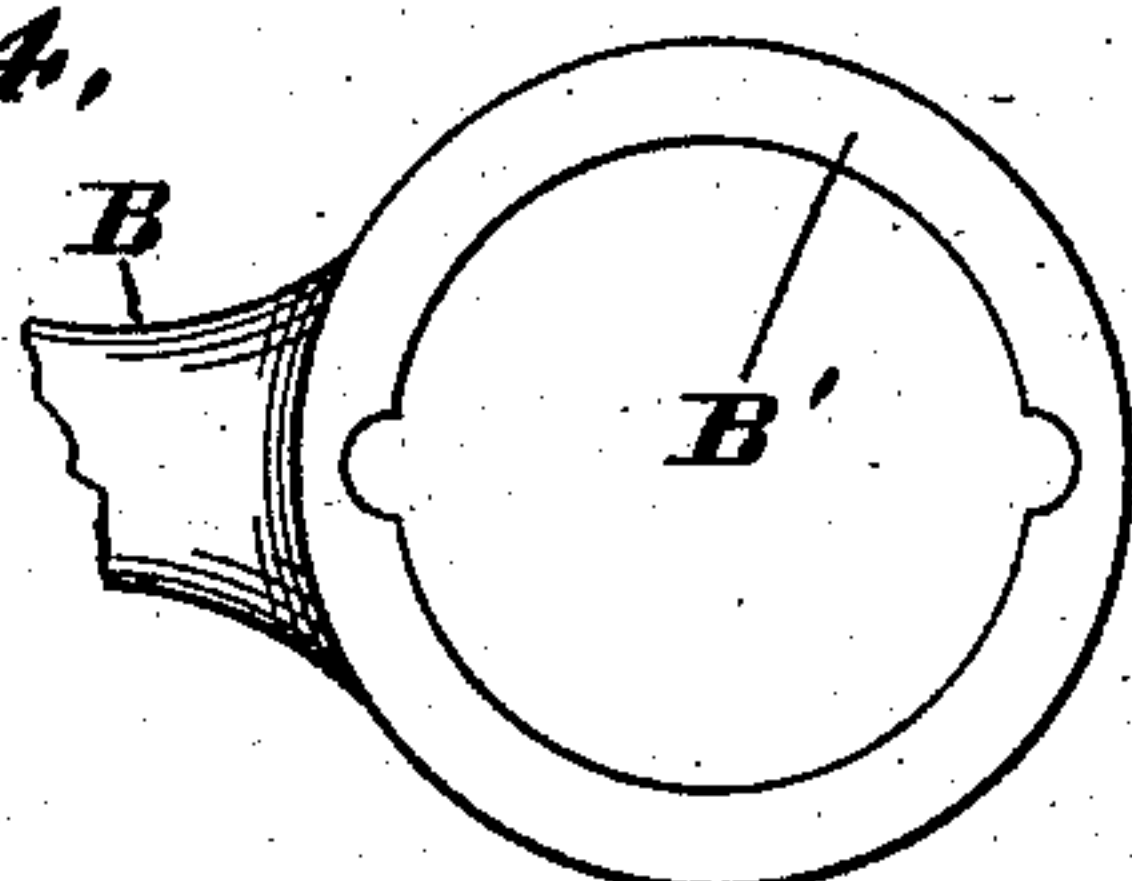
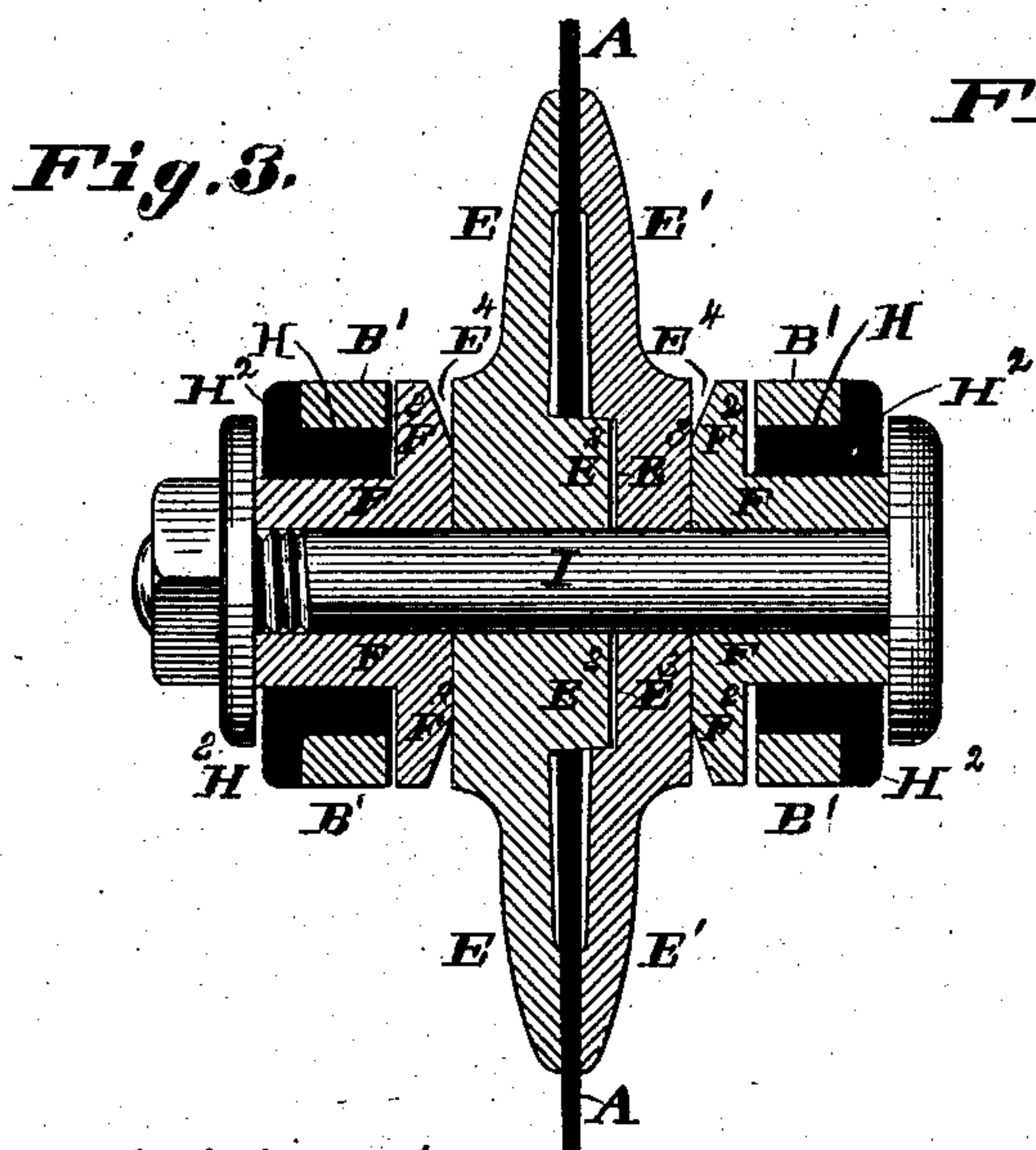
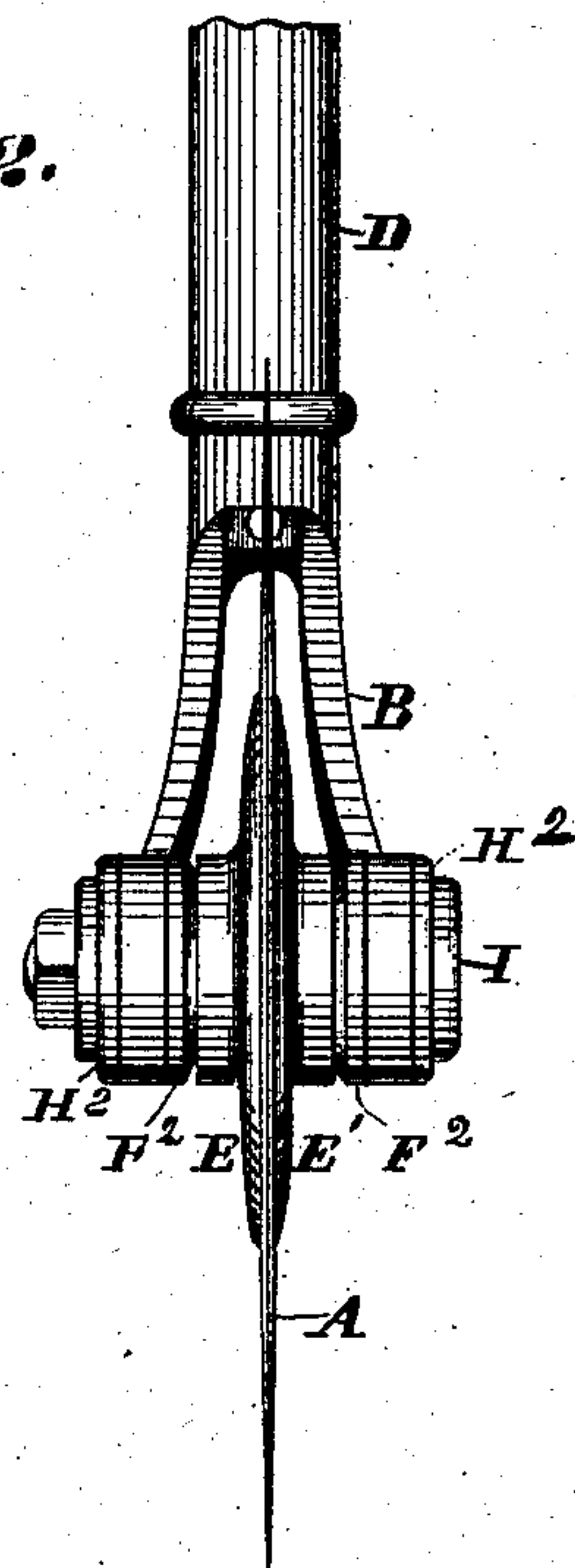
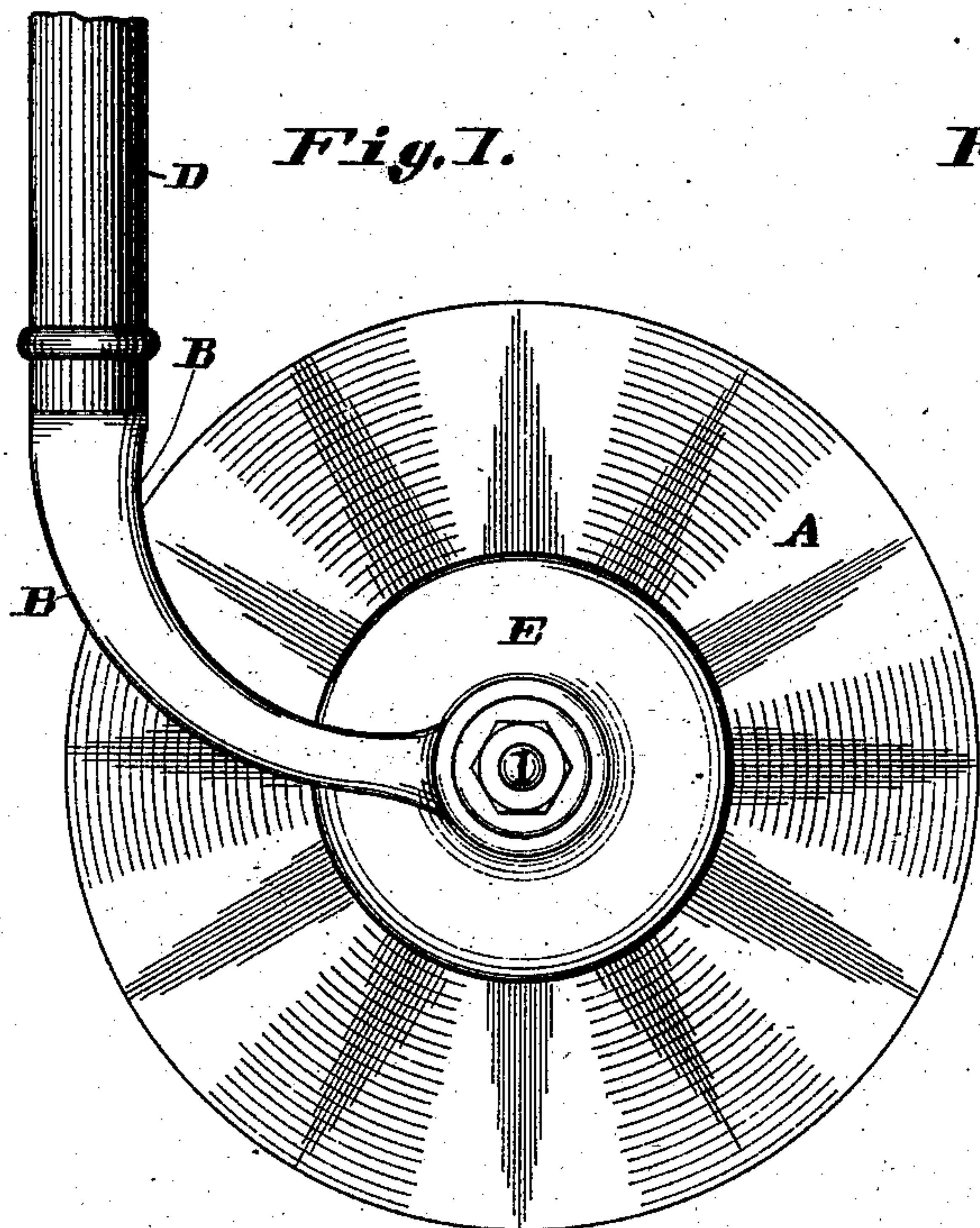


(No Model.)

F. J. UNDERWOOD.
ROTARY COLTER.

No. 290,148.

Patented Dec. 11, 1883.



Attest:
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UNITED STATES PATENT OFFICE.

FLAVIUS J. UNDERWOOD, OF NORTH SPRINGFIELD, MISSOURI.

ROTARY COLTER.

SPECIFICATION forming part of Letters Patent No. 290,148, dated December 11, 1883.

Application filed January 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, FLAVIUS J. UNDERWOOD, of North Springfield, in the county of Green and State of Missouri, have invented a certain new and useful Improvement in Rotary Colters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a side view; Fig. 2, a front view, being an edge view of the cutter. Fig. 3 is a vertical section. Fig. 4 is an enlarged view of one of the eyes of the yoke, showing the grooves for receiving the ribs on the journal-box; and Fig. 5 is a similar view, showing the box in place.

My invention relates to a rotary colter embodying a blade or cutter, which is journaled to a frame or yoke, the frame or yoke being secured to the beam of the plow by suitable means; and my invention consists in the manner of connecting the blade and yoke, as fully described and claimed hereinafter.

Referring to the drawings, A represents the blade or cutter; B, the yoke, and D a standard for connecting the yoke with the plow-beam.

E E' represent disks, between which the blade is clamped, that E having a central inwardly-extending projection, E², over which the blade fits tightly, and which reaches through the blade, entering tightly a cavity or socket, E³, of the disk E'. This projection E² is preferably made tapering, and the socket E³ correspondingly tapering, so that when the parts are pressed together they will remain in that position without otherwise being fastened, until they are put in the frame or yoke, this being an assistance in putting the parts of the colter together and holding the blade in position. The disks have central openings or holes, as shown, through which the connecting-bolt I passes.

F F represent journal-blocks, which fit against the disks, and which have flanges F² upon their inner ends, respectively, and they fit into journal-boxes H H, having flanges H² H², which are secured in the eyes B' B' of the yoke and held from turning therein by

grooves in the eyes receiving ribs on the boxes. (See Figs. 4 and 5.) The inner ends of the journal-boxes fit snugly against the flanges of the journal-blocks, or there may be a slight play between them, as shown. The inner part of the flanges of the blocks are preferably tapered off, as shown, forming V-grooves E⁴ E⁴ between them and the disks, which receive any dirt falling from the blade, keeping it from the journals. The blocks have central openings to receive the connecting-bolt I, and their outer ends extend somewhat beyond the eyes of the yoke, as shown, so that when the connecting-bolt is put in place and tightened up the boxes will not be pressed between the head and washer of the bolt and the flanges of the journal-blocks, for then the blocks could not turn freely between them. The connecting-bolt is provided with a washer and nut at one end, as shown, and a head on the other end. The blade, disks, journal-blocks, and connecting-bolt are supposed to turn together, the journal-blocks turning in the journal-boxes, as stated. The journal-boxes may be made of any suitable material—as, for instance, composition, wood, metal, or rawhide; or they may be made from a self lubricating material—as, for instance, vulcanized fiber. The construction described is intended for the solid forked yoke; but when the yoke is adjustable each disk may have its journal in one piece with it, as well as the flange forming the V-shaped groove. It is quite an advantage to have the disks and other parts held together while putting them in the yoke, and this is done by making the projection tapering, so as to wedge into the socket.

I claim—

In a colter, the combination of blade A, disks E E', journals F F, having flanges F² F², boxes H H, having flanges H² H², bolt I, and yoke B, having eyes B' B', the boxes and eyes having rib-and-groove connection, and the eyes being received between the flanges of the journals and boxes, as set forth.

FLAVIUS J. UNDERWOOD.

Attest:

HENRY C. YOUNG,
SEWARD A. HASELTINE.