

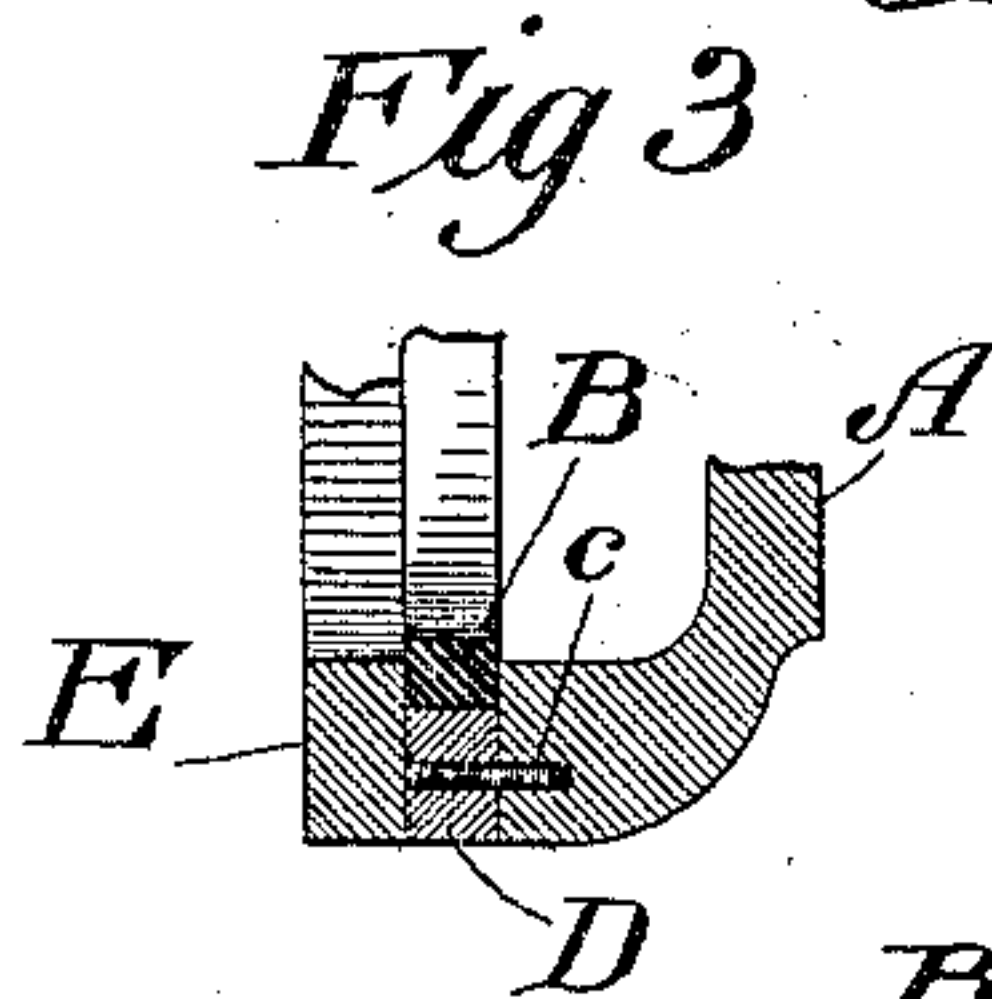
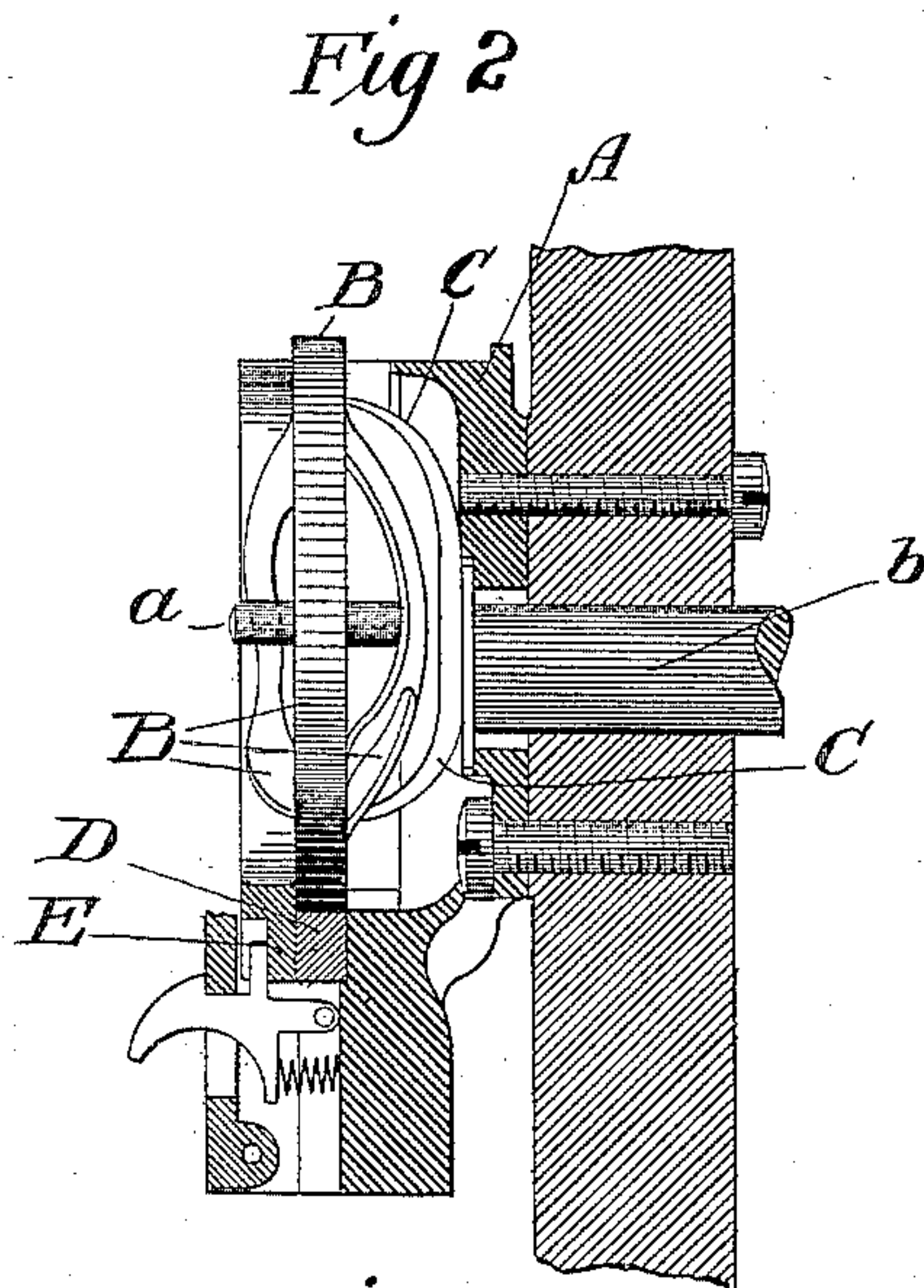
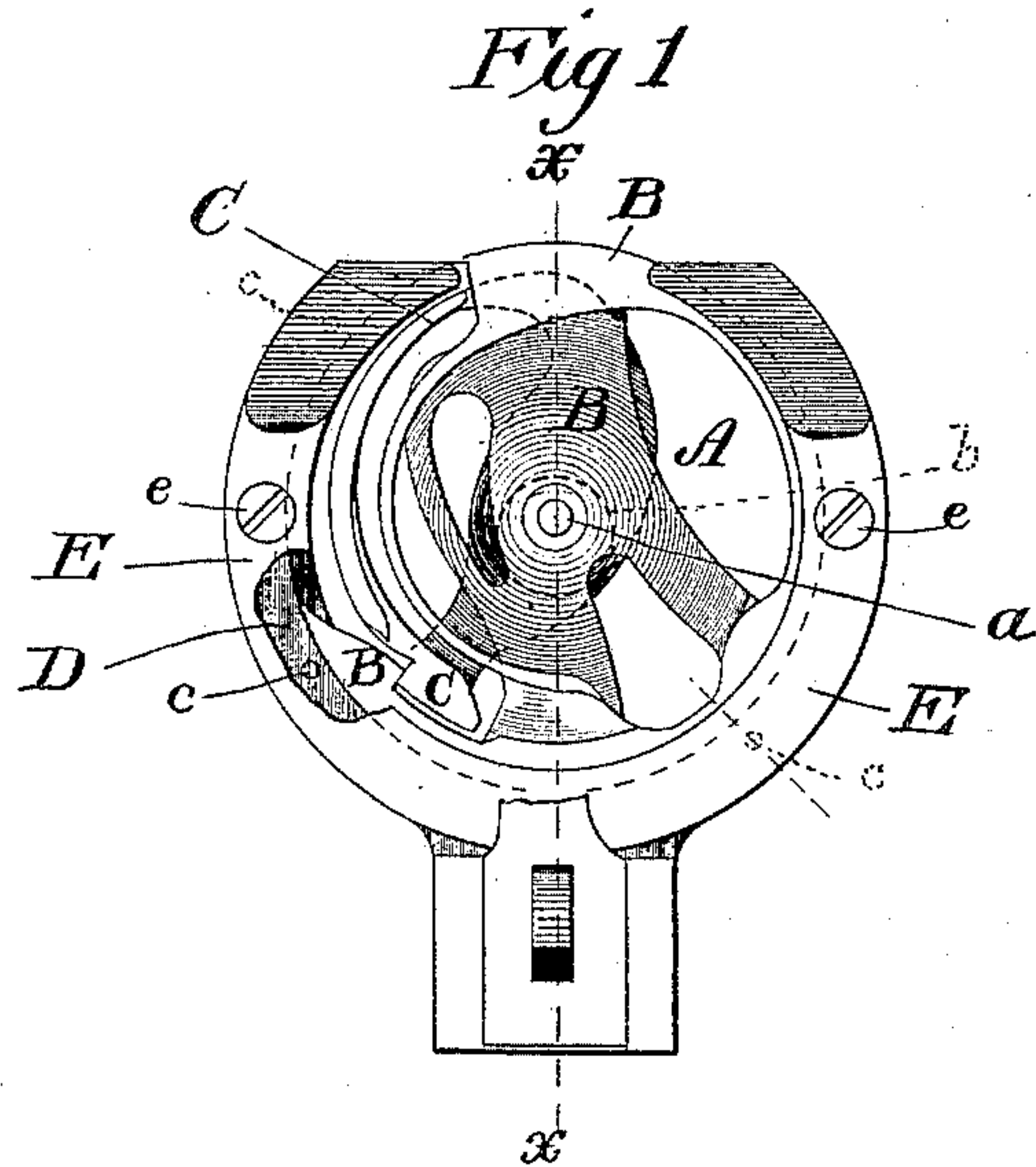
(No Model.)

D. E. MARSH.

RACEWAY FOR ROTARY SEWING MACHINE SHUTTLES.

No. 411,290.

Patented Sept. 17, 1889.



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL E. MARSH, OF BRIDGEPORT, CONNECTICUT.

RACEWAY FOR ROTARY SEWING-MACHINE SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 411,290, dated September 17, 1889.

Application filed July 28, 1888. Serial No. 281,270. (No model.)

To all whom it may concern:

Be it known that I, DANIEL E. MARSH, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Rotary-Shuttle Raceways; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to certain novel and useful improvements in the construction of raceways for rotary shuttles in sewing-machines, and has for its object to provide such a device as shall readily admit of repairing when the shuttle-bearing becomes worn, and, furthermore, to effect a great saving of time and expense in perfecting the relative movements of the shuttle and driver; and with these ends in view my invention consists in details of construction and combination of elements, as will be hereinafter fully set forth, and then specifically designated by the claim.

In the accompanying drawings, Figure 1 is a front elevation showing particularly the shuttle and driver and illustrating by solid and dotted lines, respectively, the eccentricities of their axes; Fig. 2, a section at the line xx of Fig. 1, with the shuttle and driver in elevation, the forward end of a sewing-machine bed appearing in broken section; and Fig. 3, a detail broken section taken at the line yy of Fig. 1.

A is the shuttle-race casing; B, the shuttle, and C the driver.

I will not enter into any description of the construction and operation of the shuttle and driver, as they form no part of my invention, and are moreover constructed and operated

in the usual well-known manner. The only feature regarding said shuttle and driver which it is necessary to bear in mind is that their axes are not concentric, and that therefore their respective fields of travel intersect at two diametrically-opposite points, whereby the nose and heel of the shuttle may alternately be withdrawn from the driver to admit and release the loop. The axis of the shuttle is denoted by a , while that of the driver is lettered b .

D is the bearing for the periphery of the shuttle or the shuttle-raceway, and it consists of a metallic ring made separate from the casing A and attached thereto by dowels c . E is a cap which is secured over this ring and to the casing by means of screws e . Whenever the ring becomes worn, so that the shuttle has a lost motion therein, it becomes necessary merely to substitute a new ring.

I do not wish my invention to become confounded with any of the numerous shuttle-bearings at present used, since the latter are nothing but hard steel sectional rings, principally constructed with a view to permit of lubrication without smearing the thread with oil.

Having thus described my invention, what I claim as new is—

A raceway for rotary shuttles, consisting of an independent and separable ring secured to the shuttle-race casing by dowel-connections, and a superimposed cap, the parts being combined as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL E. MARSH.

Witnesses:

F. W. SMITH, Jr.,
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