

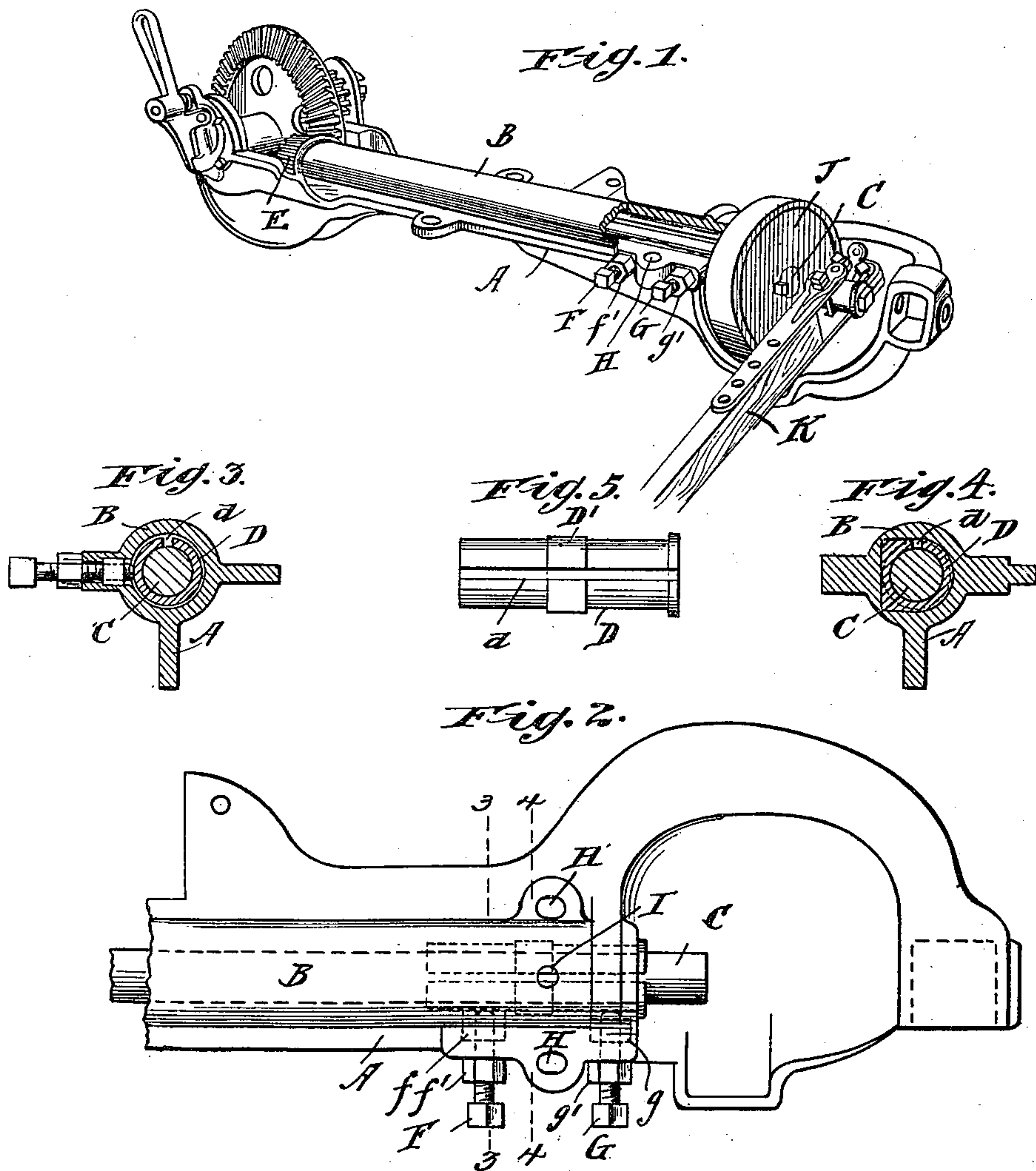
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Patented Feb. 5, 1901.

J. F. APPLEBY.
SHAFT BEARING.

(Application filed Dec. 18, 1899.)

(No Model.)



Witnesses,
J. O. Mann,
Frederick Goodwin

Inventor,
John F. Appleby,
By Offield, Towles & Luthin, Attys.

UNITED STATES PATENT OFFICE.

JOHN F. APPLEBY, OF CHICAGO, ILLINOIS.

SHAFT-BEARING.

SPECIFICATION forming part of Letters Patent No. 667,644, dated February 5, 1901.

Application filed December 18, 1899. Serial No. 740,709. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. APPLEBY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shaft-Bearings, of which the following is a specification.

This invention has relation to the provision of a convenient shaft-bearing for machines wherein some connecting and supporting framework is essential; and the object of the invention is to simplify and cheapen the construction of such bearings.

I have shown my invention as embodied in a part of a mowing-machine frame and have shown in the accompanying drawings that portion of the frame which supports the gearing communicating motion to the pitman.

In said drawings, Figure 1 is a perspective view of the gear-casting of a mowing-machine frame, partly in broken section, with the gearing in place and the pitman broken away. Fig. 2 is a plan view, partly broken away, of the front end of said frame, showing the shaft in place, but with the crank-disk and pitman removed. Figs. 3 and 4 are cross-sectional views on lines 3 3 and 4 4 of Fig. 2, and Fig. 5 is a plan view of the sleeve forming a bearing for the shaft.

In said drawings, A represents a frame-casting, if desired in one piece, having a tubular portion B to contain the pitman-driving shaft C. This tubular portion being quite long and the casting heavy, if it were bored true to form a proper bearing for the shaft the expense would be considerable, and it is to avoid this expensive fitting that my invention is devised. The front end of said tubular portion is cored or molded out to afford a recess for a sleeve D. (Shown in Fig. 5.) Said sleeve is slotted longitudinally, as shown at *d*, and its central portion is swelled or bulged out, as at *D'*, and such swelled or bulged portion may be rectangular in its external contour. The casting will be chambered to receive this enlarged portion and form abutments therefor, which will center the sleeve and prevent its working endwise, while at the same time it will permit said sleeve to be fixed in alinement with the bearing at the rear end of the tubular portion which supports the inner end of the shaft next to the pinion E. In order to fix the sleeve in

proper alinement with the rear bearing and also to compress it to compensate for wear, I employ the adjusting-screws F G, which turn through threaded nuts *f g*, fitting in proper seats therefor formed in the interior of the tubular member B. These screws are intended to turn entirely through the nuts, and their points or extremities bear against the sleeve or bushing near its ends and on opposite sides of its central enlargement. In order to hold the adjusting-screws in place, nuts *f' g'* are provided, which bear on the outside of the casting, which latter is provided with the bolt-apertures H, whereby the casting A is connected with the framework of the machine. An aperture I is also provided for applying an oil-cup to lubricate the bearing.

From the foregoing description it will be obvious that the interior of the tubular casting may be roughly bored and the sleeve or bushing inserted and adjusted in position to form a bearing for the shaft by manipulating the set-screws. After the shaft is in place the crank-disk J is applied and the pitman K connected to the wrist-pin of said disk. As the wear proceeds the bearing may be tightened by turning up the set-screws, thus compressing the sleeve or bushing and at the same time preserving it in proper alinement.

I am aware, of course, that split bushings are old and that clamping devices for contracting a split bushing are common; but my invention consists in the combination, with the frame member or casting, of a bearing-sleeve of the type described with means for fixing and adjusting said sleeve in position, as hereinafter pointed out in the claims.

I claim—

1. The combination with a frame-casting having a passage therethrough provided in the casting thereof, of a split sleeve or bushing located within said passage and having a bearing intermediate its ends upon the wall of said passage, said sleeve or bushing being adapted to afford a shaft-bearing, and adjusting-screws extending through the walls of said frame-casting and adapted to impinge said sleeve on opposite sides of its central bearing, whereby it may be adjusted to proper alinement and compressed to compensate for wear, substantially as described.

2. In a shaft-bearing, the combination, with a tubular frame chambered upon its interior, of a sleeve or bushing having an external enlargement at its central portion
5 adapted to said chamber, said sleeve or bushing being longitudinally slotted, and set-screws having a bearing in said frame and adapted to impinge said sleeve at opposite sides of its central enlargement, substantially as and for the purpose described.
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3. In a shaft-bearing, the combination, with a tubular frame having an annular chamber in its tubular portion, of a slotted sleeve having a central peripheral enlarge-

ment with angular side walls adapted to said 15 chamber, set-screws passing through said frame and having their inner ends adapted to impinge upon the ends of the sleeve with nuts through which said set-screws are threaded, said nuts being located externally and inter- 20 nally of the frame respectively, and the internally-located nuts being confined against rotation, substantially as described.

JOHN F. APPLEBY.

Witnesses:

C. C. LINTHICUM,
FREDERICK C. GOODWIN.