

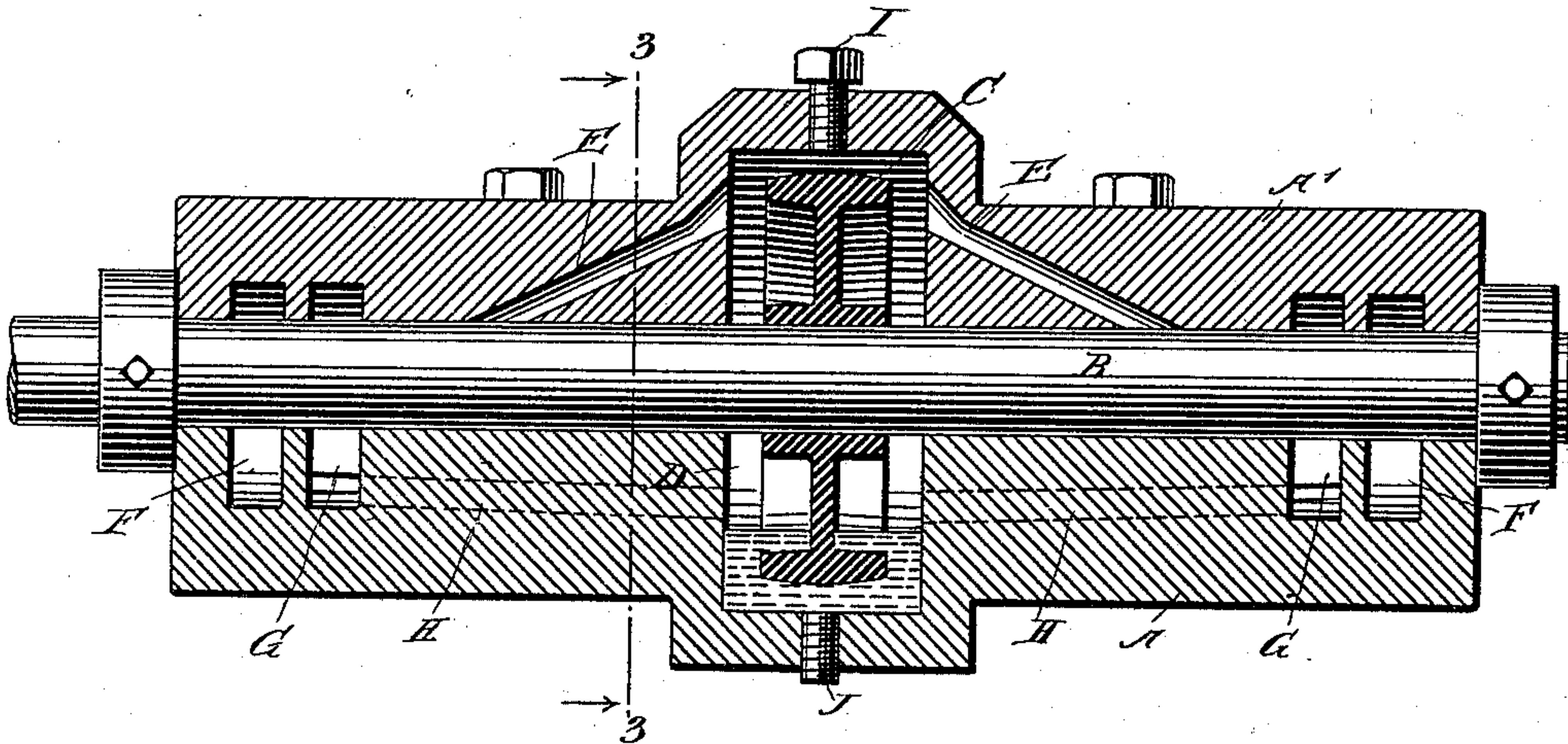
(No Model.)

D. L. ALTMAN.  
SELF OILING BOX.

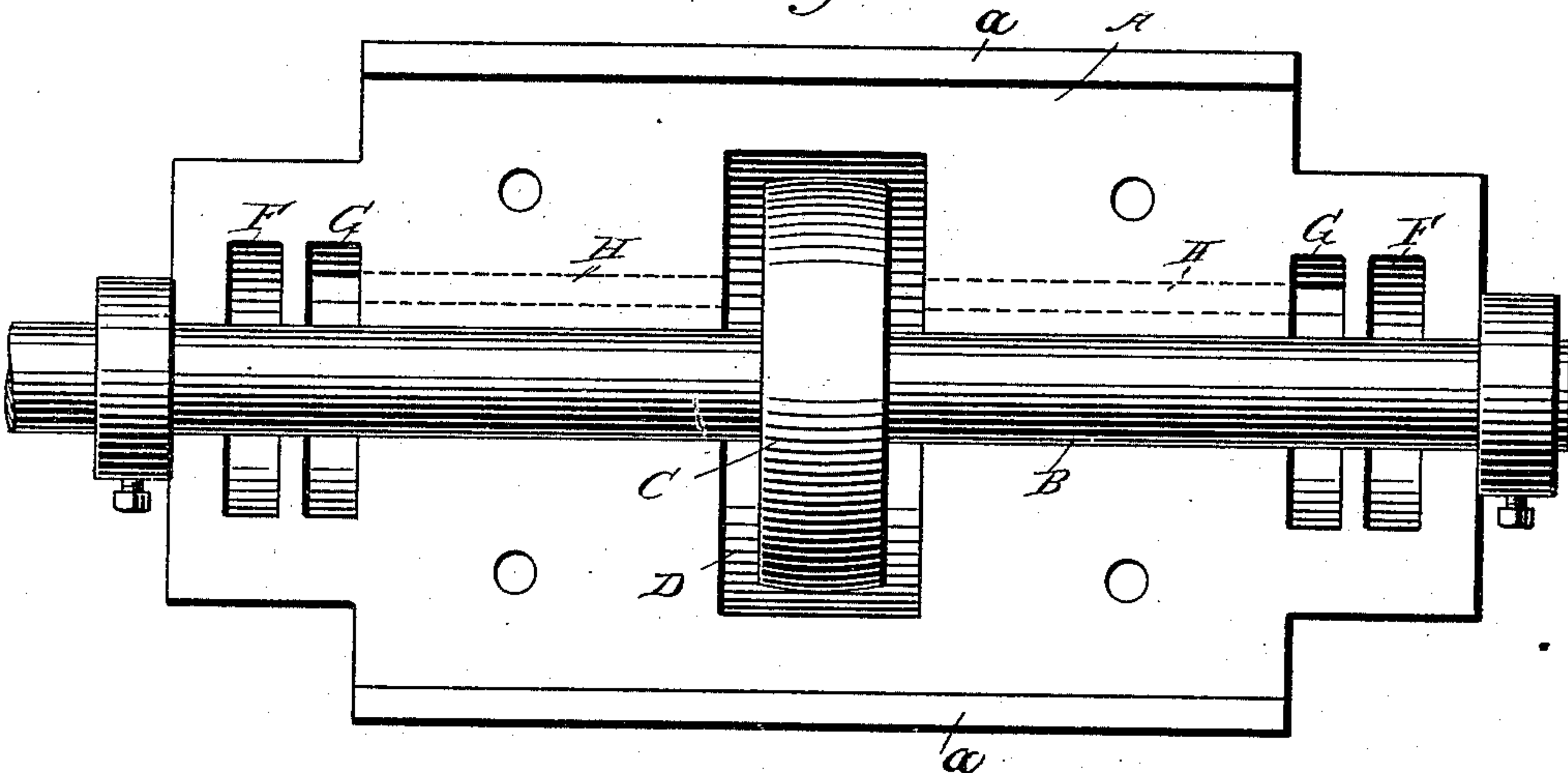
No. 553,147.

Patented Jan. 14, 1896.

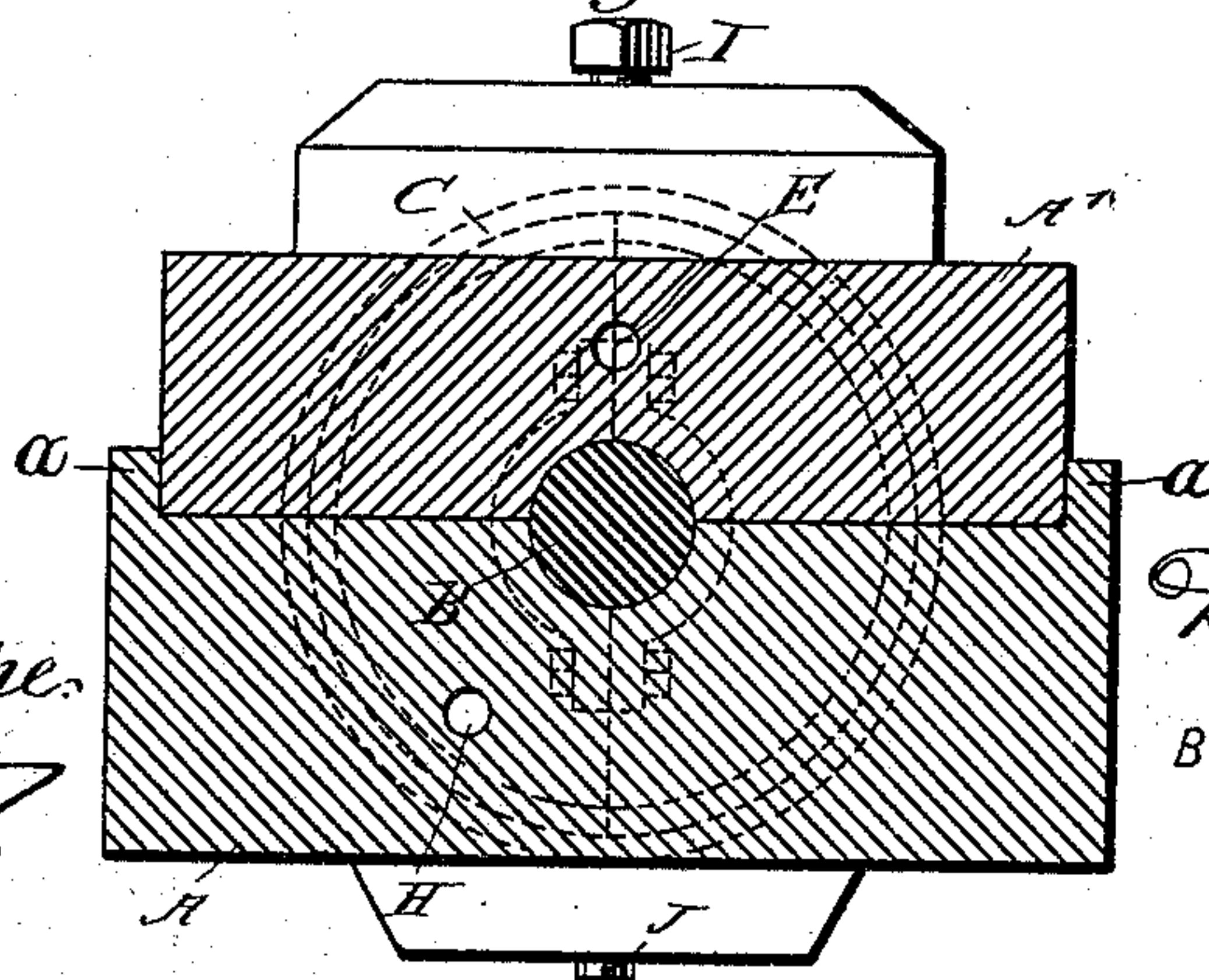
*Fig. 1,*



*Fig. 2,*



*Fig. 3.*



WITNESSES:

Edward Thorpe.  
Rev. J. K. Smith,

INVENTOR

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# UNITED STATES PATENT OFFICE.

DAVID LEE ALTMAN, OF EAU CLAIRE, WISCONSIN.

## SELF-OILING BOX.

SPECIFICATION forming part of Letters Patent No. 553,147, dated January 14, 1896.

Application filed April 30, 1895. Serial No. 547,649. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID LEE ALTMAN, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented a new and Improved Self-Oiling Box, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved self-oiling box which is simple and durable in construction, very effective in operation, completely dust-proof, and arranged to supply and distribute the lubricant properly and evenly on a revolving shaft.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a plan view of the same with the cap of the box removed, and Fig. 3 is a transverse section of the same on the line 3 3 of Fig. 1.

The box is made with a bottom part, A, and a top part, A', bolted or otherwise fastened to the bottom part, A. The bottom part or section A is formed at its upper edges with upwardly-projecting flanges or ribs *a*, which embrace the part A' and assist in holding the two parts together. In this box is journaled a shaft B, carrying at or near the middle of the box a wheel C, extending in a well D containing the lubricant, as plainly indicated in Fig. 1.

The sections A and A' are longitudinally elongated with the shaft or journal B and are formed with longitudinal bores which jointly receive the shaft.

In the top A' of the box are arranged inclined channels E extending from near the upper ends of the well downwardly and outwardly, to terminate on the shaft B, so that any lubricant introduced into the upper ends of the said channels flows down the same to lubricate the shaft B. Now it will be seen

that when the shaft B is in motion the wheel C rotates with the said shaft, and as it passes through the lubricant in the well D it takes up some of the lubricant and throws it by centrifugal force into the upper part of the well and into the enlarged upper ends of the channels E. The lubricant then flows down the same to oil the shaft B, as previously explained.

Near each outer end of the box and surrounding the shaft B are arranged two chambers F and G, of which the chamber F serves as a dust-chamber to receive any dust or other matter which may pass in at the ends of the box on the shaft B. The second chamber, G, is connected in its bottom by a channel H with the lower part of the well D, so that any lubricant that works along the shaft B to the chamber G flows down the same and returns by the channel H to the well D. Thus it will be seen that as long as the shaft B is in motion the lubricant is supplied to the shaft by the centrifugal action of the wheel C, and no lubricant whatever is lost, as the lubricant that works along the shaft B returns either directly to the well D or indirectly by the chamber G and channel H.

The well D is provided in its top with a filling-aperture normally closed by a screw I, and an opening in the bottom of the said well serves to clean the well whenever desired. This bottom opening is normally closed by a screw J, as indicated in the drawings.

By the arrangement described the lubricant can be used continuously from two to four weeks without cleaning the well or refilling the same with new lubricant. It will further be seen that it is wholly immaterial in which direction the shaft is running, as sufficient lubricant will be supplied to the shaft at all times, and as long as the shaft is running. Still further it will be obvious that the chambers G are entirely free from communication with the chamber F, for owing to the wall between them and the snug engagement of said wall with the shaft the passage of all matter is prevented.

Having thus fully described my invention,  
I claim as new and desire to secure by Letters  
Patent—

5 A journal bearing having a central and in-  
closed oil well communicating with the jour-  
nal and having at each side of said oil well  
a dust chamber, the same being closed on  
every side and in communication with the

journal, the said dust chambers having their  
walls in closed contact with the journal, sub- 10  
stantially as described.

DAVID LEE ALTMAN.

Witnesses:

WILLIAM CAMPBELL,  
JOHN G. WILSON.