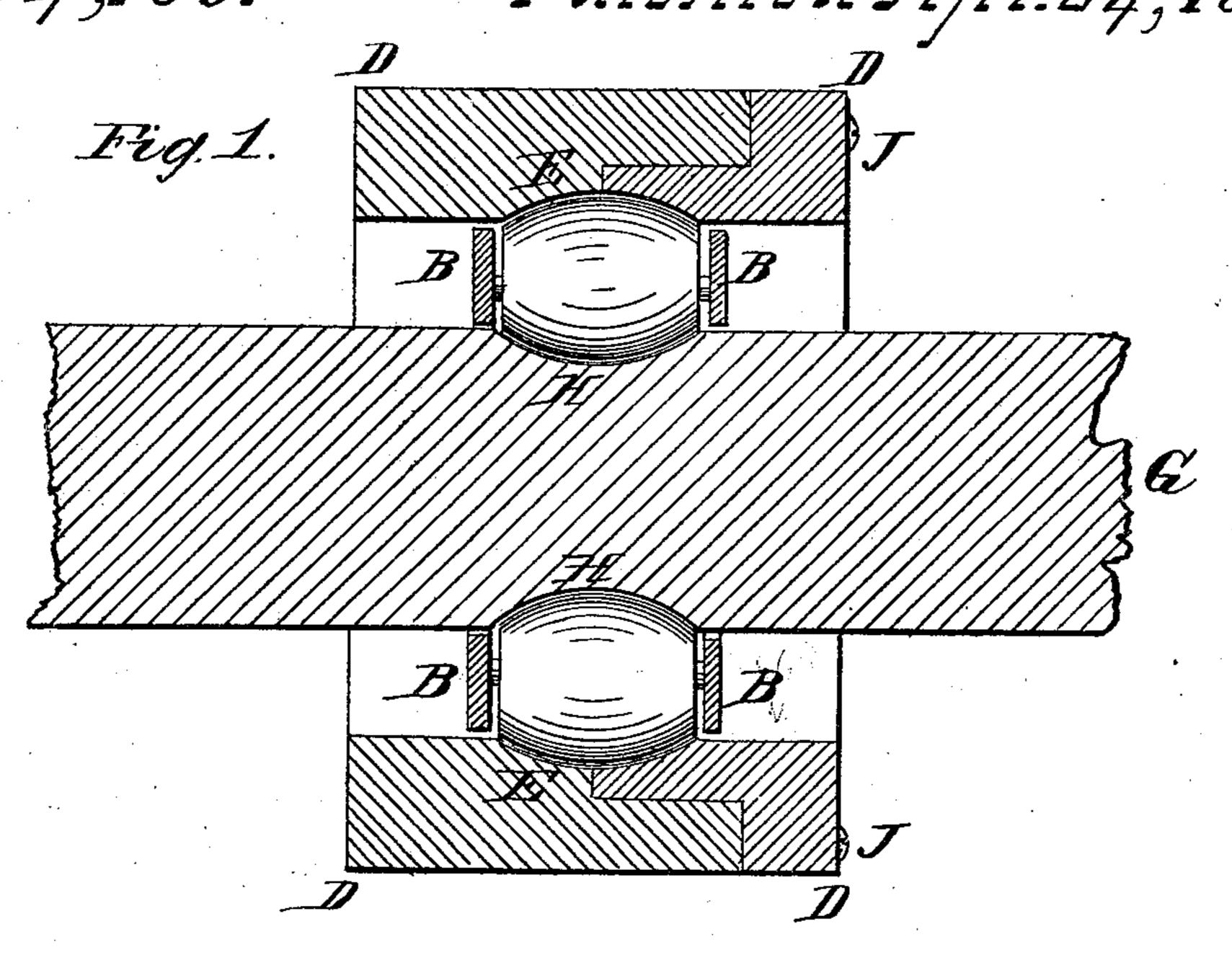
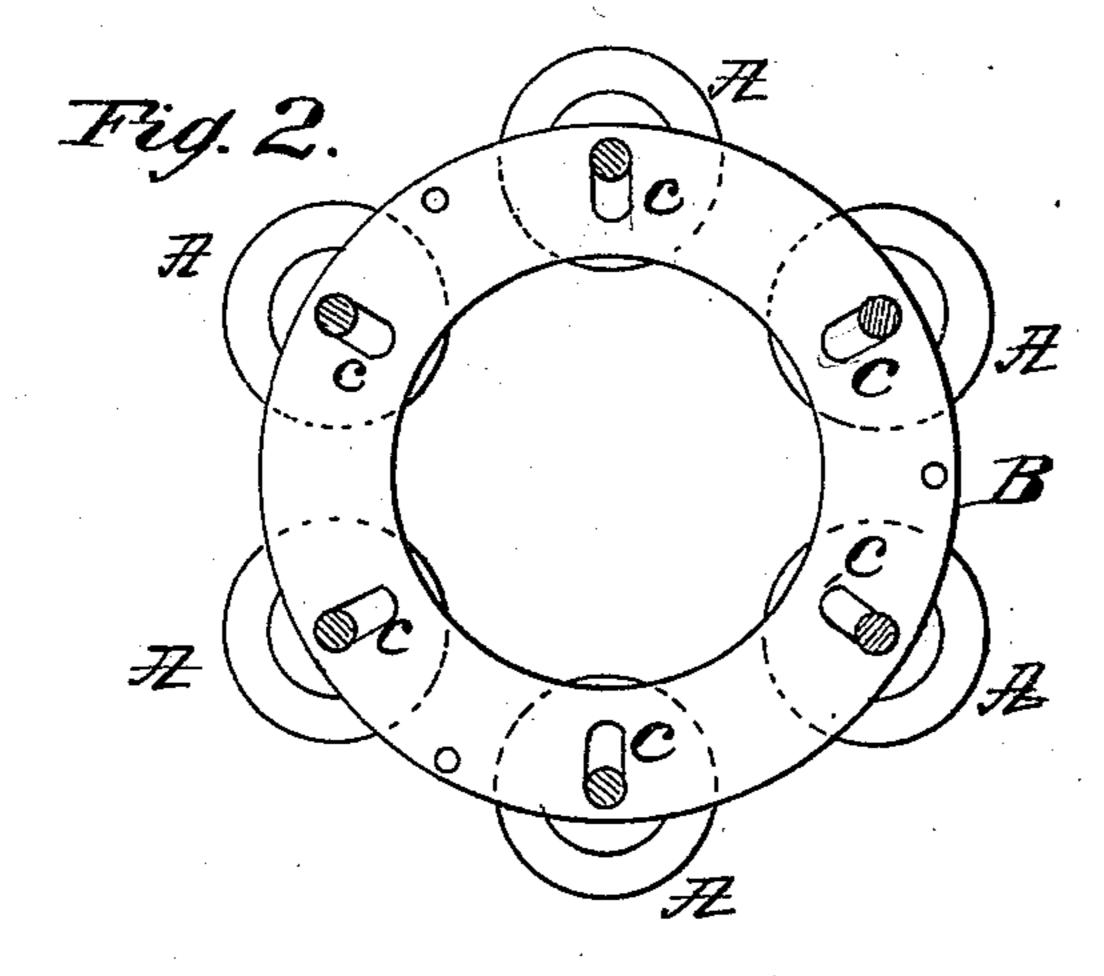
## D. H. Hickork

Anti-Friction Roller.

Nº 54,156. Patented Apr. 24,1866.





Hitnesses Holowng Athanklin Reigath

Inventor.

## United States Patent Office.

D. K. HICKOK, OF MORRISVILLE, VERMONT.

## IMPROVED JOURNAL-BOX.

Specification forming part of Letters Patent No. 54,156, dated April 24, 1866.

To all whom it may concern:

Be it known that I, D. K. HICKOK, of Morrisville, Lamoille county, State of Vermont, have Invented an Adjustable Anti-Friction Journal-Box; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Figure 1 represents a cross-section of the divided and adjustable box, with the anti-friction rollers and shaft, with corresponding groove. Fig. 2 represents the rollers with their journals operating in the slots of circular end plates.

The nature of my invention consists in the construction of the adjustable box and rollers with the grouped shaft combined

with the grooved shaft combined.

A represents the rollers, wider at the center than at the ends. They operate between two circular plates, B, their journals revolving in slots C. The box D is in two parts, having a groove, E, in the center corresponding with the shape of the rollers. The shaft G has also a groove, H, around it corresponding with the shape of the rollers. The rollers, as attached to their end plates, are placed into one division

of the box D loosely. The shaft G is then inserted in the center, between the rollers A, until the rollers rest in the groove H. The other division of the box D is then fitted against its opposite part and against the rollers and their end plates, B, and screwed up by the screws J until the rollers are adjusted by the adjustable box, the rollers adjusting themselves to a common center by their journals working in their slots C; and thus the shaft will operate loosely or stiff as the rollers are pressed upon by the adjusting or screwing together the sides of the box D. The shaft can then be made to work stiff or to roll and play with the rollers in an undulating motion, similar to a ball-andsocket movement.

What I claim as my invention, and desire

to secure by Letters Patent, is—

The divided and adjustable box D, in combination with the rollers A, slotted bearings C, and grooved shaft G, constructed as described, and for the purpose specified.

D. K. HICKOK.

Witnesses:

J. Franklin Reigart, John S. Hollingshead.