

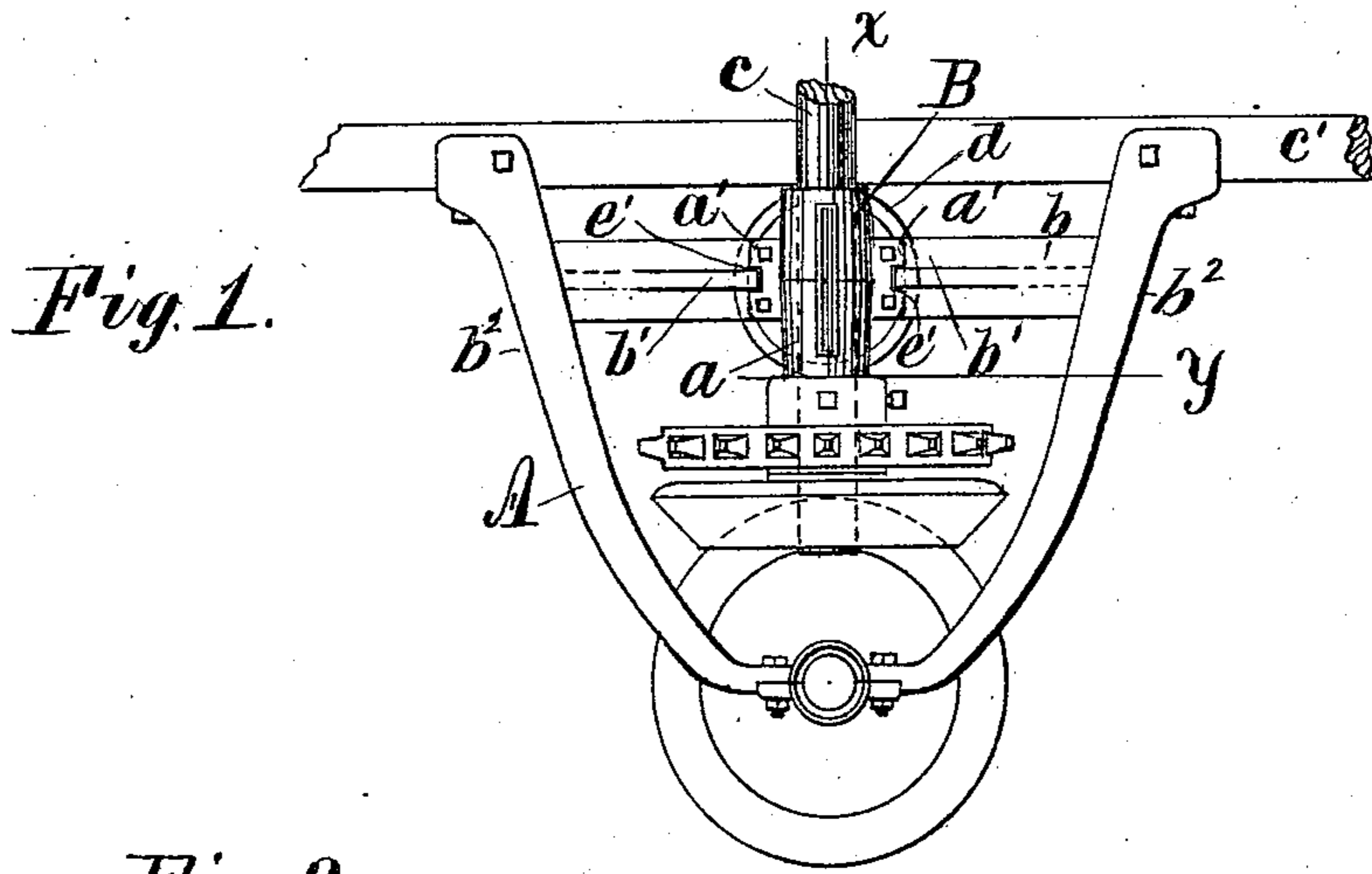
(No Model.)

L. B. KOHNLE & W. B. HAMILTON.

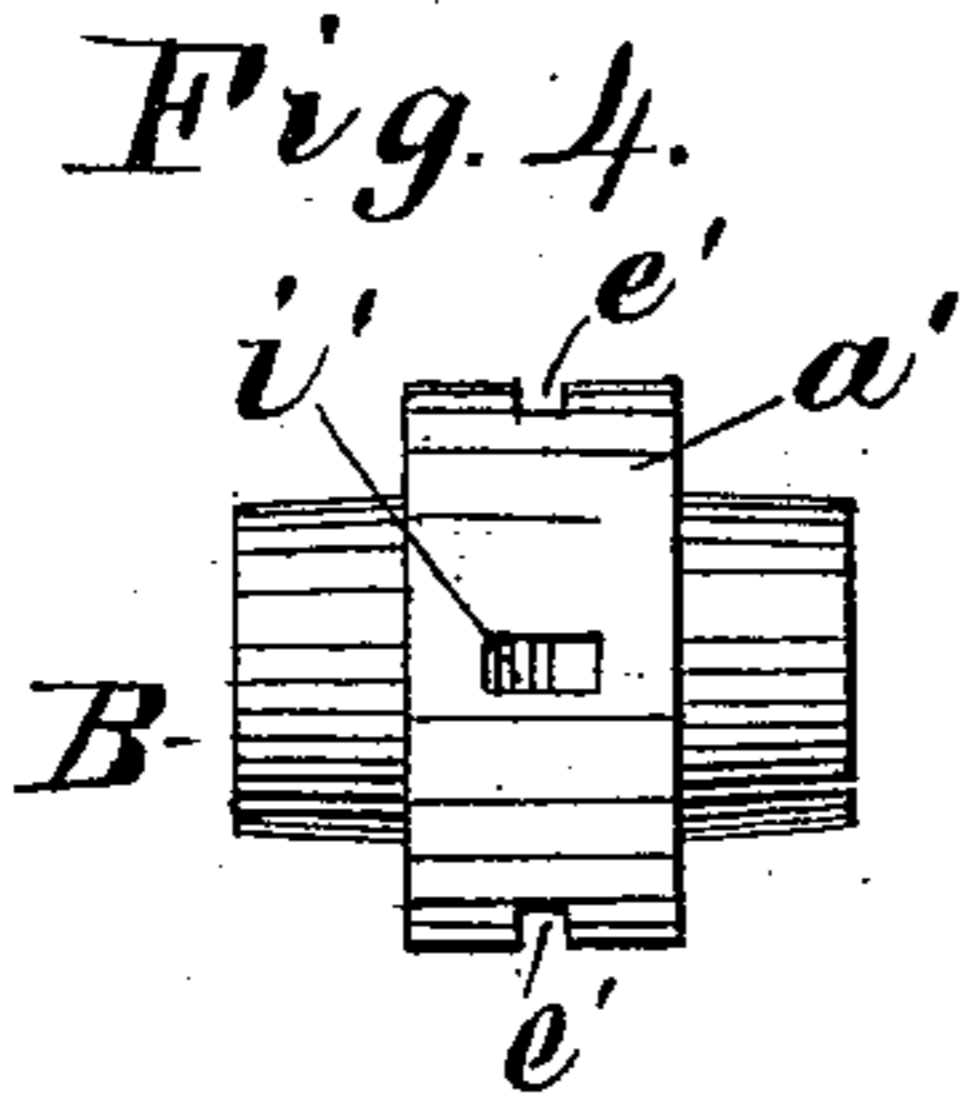
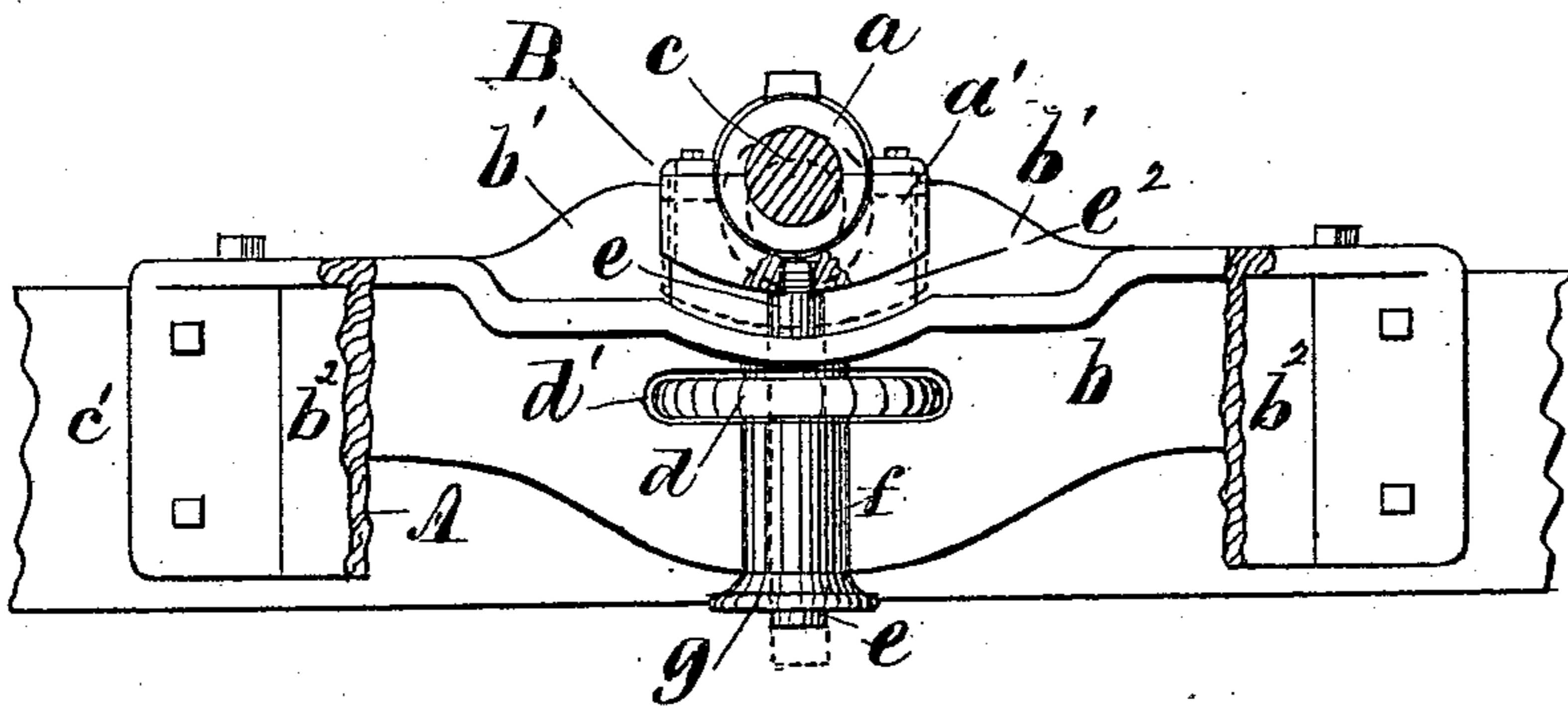
COMBINED BRACKET AND ADJUSTABLE BOX BEARING FOR SHAFTING.

No. 284,564.

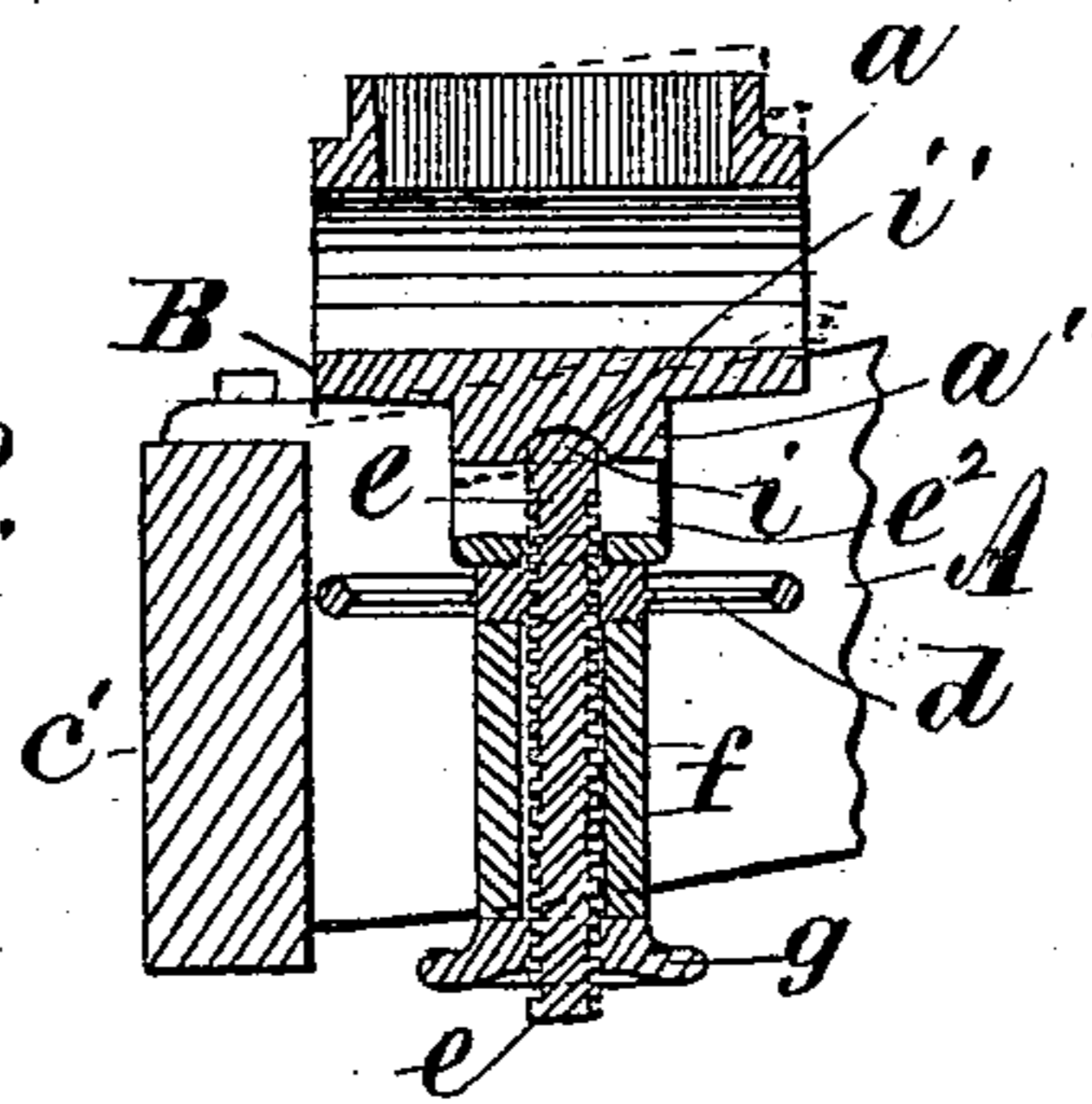
Patented Sept. 4, 1883.



*Fig. 2.*



*Fig. 3.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

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COMBINED BRACKET AND ADJUSTABLE BOX-BEARING FOR SHAFTING.

SPECIFICATION forming part of Letters Patent No. 284,564, dated September 4, 1883.

Application filed July 9, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, LAWRENCE B. KOHNLE and WILLIAM B. HAMILTON, both citizens of the United States, residing at Lima, in the county of Allen and State of Ohio, have jointly  
5 invented certain new and useful Improvements in a Combined Bracket and Adjustable Bearing for Shafting; and we do hereby declare the following to be a full, clear, and exact  
10 description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improved bracket and bearing for the shafting of reel-chests; and it consists in the combination, with the  
15 bracket having the bearing for the upright gear-bearing shaft, of an adjustable journal box or bearing for the reel-shaft, and means for adjusting said journal-box, all embraced  
20 in the same device, the object of which is to preserve the continuity of the pitch-line given to the reel-shaft and its proper relation to the bearing, and to lessen the friction by allowing the journal-box to adjust itself to the shaft.

25 The invention applies particularly to reel-shafts adapted to variable inclination.

Figure 1 is a top view of our combined bracket and bearing. Fig. 2 is a vertical section on line  $y$  of Fig. 1. Fig. 3 is a vertical  
30 section on line  $x$  of the same figure. Fig. 4 is a view of the under side of the journal-box of the reel-shaft. Fig. 5 embraces two views, 1 and 2, of the top part of the adjusting-screw for operating the reel-shaft bearing.

35 The bracket A is a horizontal one, and consists of the two limbs  $b^2$ , forming an arch, in the vertex of which is located the box-bearing of the upright shaft, which carries the drive-gear engaging with that upon the reel-shaft.  
40 The bracket is bolted to the horizontal frame-bar or bridge-tree  $c'$  by vertical and horizontal bolts through the flanged feet of its two limbs,  $b^2$ . Parallel with the frame-bar  $c'$  is a tie-beam,  $b$ , connecting the two limbs of the bracket, and  
45 supporting the adjusting devices of the journal-box B, which are combined with and made a part of the bracket. The tie-beam has an opening in its top at the center, upon either side of which are vertical flanges  $b'$ , which  
50 form guides and engage with grooves  $e'$  in the

block B upon each side. These grooves are made wider than the guide-flanges in order to allow the box B to be moved freely up or down in adjusting it, and also to allow of a sufficient inclination of the box in the line of the shaft  
55 to adapt it to the latter when pitched in either direction. A non-rotating screw,  $e$ , extends vertically through a smooth hole in the center of the tie-beam, which latter has a horizontal slot,  $d'$ , in it across the line of this hole, in which  
60 a hand-wheel,  $d$ , for operating the screw, is located, the screw extending through its hub, which latter is threaded to engage therewith. The upper end of the screw is an oblong square in its cross-section, has its top surface rounded  
65 in the direction of its longest diameter, and is inserted in a hole,  $i'$ , in the under side of the journal-box B, having its longest diameter in line with the box to allow of any inclination given to the box in elevating or depressing  
70 this end of the reel-shaft.

The operation of the adjusting device in connection with the bracket may be seen in the views Figs. 2 and 3, which show the box B with its upper and lower sections,  $a$  and  $a'$ , as  
75 elevated, leaving the space  $e^2$  under it. In the view Fig. 2 a portion of section  $a'$  is broken out to show the position of the end of the screw  $e$ , which engages with the hole in the under side of the box. By turning the hand-wheel toward  
80 either side the box is raised or lowered, as required. A clamp nut,  $g$ , on the lower end of screw  $e$  is screwed up against the end of the sleeve part  $f$  of the tie-beam to lock the screw when the adjustment is made. The dotted  
85 lines in Figs. 2 and 3 show the movement of the box B, and in the latter figure the inclination of the box to the pitch of the shaft is shown also.

We claim as our invention—

90 1. In a bracket for connecting and supporting the journal-bearings of an upright and a horizontal shaft, the gearing of which engage each other, the combination of a tie-beam extending across the same, provided with vertical  
95 guides engaging with grooves in the bearing of the horizontal shaft, whereby said bearing is adjustably held therein, and a non-rotating screw extending upward through said tie-beam beneath the bearing and engaged  
100

therewith, and operated by a hand-wheel nut to adjust the box to the variable position required for the shaft.

2. In a horizontal bracket adapted to support the bearings of two shafts at an angle with each other, the combination, with the tie-beam of said bracket, having a vertical guideway therein, within which the bearing of the horizontal shaft is operated, of the grooved journal-bearing, provided with a rectangular hole in its under side, a non-rotating screw (the top end of which is made to conform to the hole) inserted therein, and a hand-wheel threaded to engage said screw, whereby the necessary adjustment of the bearing and its shaft is effected, as set forth.

3. The combination, with a horizontal bracket for supporting the bearings of two shafts at an angle with each other, connected by gearing, of a tie-beam connecting the two limbs of the bracket, provided with an open guideway having vertical guide-walls, a bearing-box for the horizontal shaft, having guide-grooves on either side of the same wider than said guide-walls to allow the shaft-bearing to be inclined in either direction in the line of the shaft, and a non-rotating screw centrally under said bearing, extending through said tie-beam, having a hand-wheel nut operating within a horizontal

slot in the tie-beam, adapted to operate said screw, and a clamp-nut at the lower end of the same, whereby the bearing may be adjusted and locked in adjustment, as set forth.

4. The combination, with the bracket A, having the tie-beam *b*, with the opening *e*<sup>2</sup> therein, and guide-flanges *b'* on either side of said opening, of the box-bearing B, having grooves *e'* on either side of said bearing with which said guide-flanges engage, the non-rotating screw *e*, having a rectangular end, *i*, engaging with a hole, *i'*, in said bearing of like reversed shape, the hand-wheel for operating said screw and bearing, and the clamp-nut for securing the device in adjustment.

5. The combination, with the bearing B, having the oblong hole *i'* therein, of the non-rotating screw *e*, having the end *i*, of like shape, in its cross-section, and its top surface curved in the direction of its longest diameter to adapt it for the purpose hereinbefore set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LAWRENCE B. KOHNLE. [I. S.]  
WILLIAM B. HAMILTON.

Witnesses:

H. B. HASKEDORN,  
J. J. FERRALL.