

S. C. ELLIS.

Improvement in Journal-Boxes.

No. 114,542.

Patented May 9, 1871.

Fig. 1

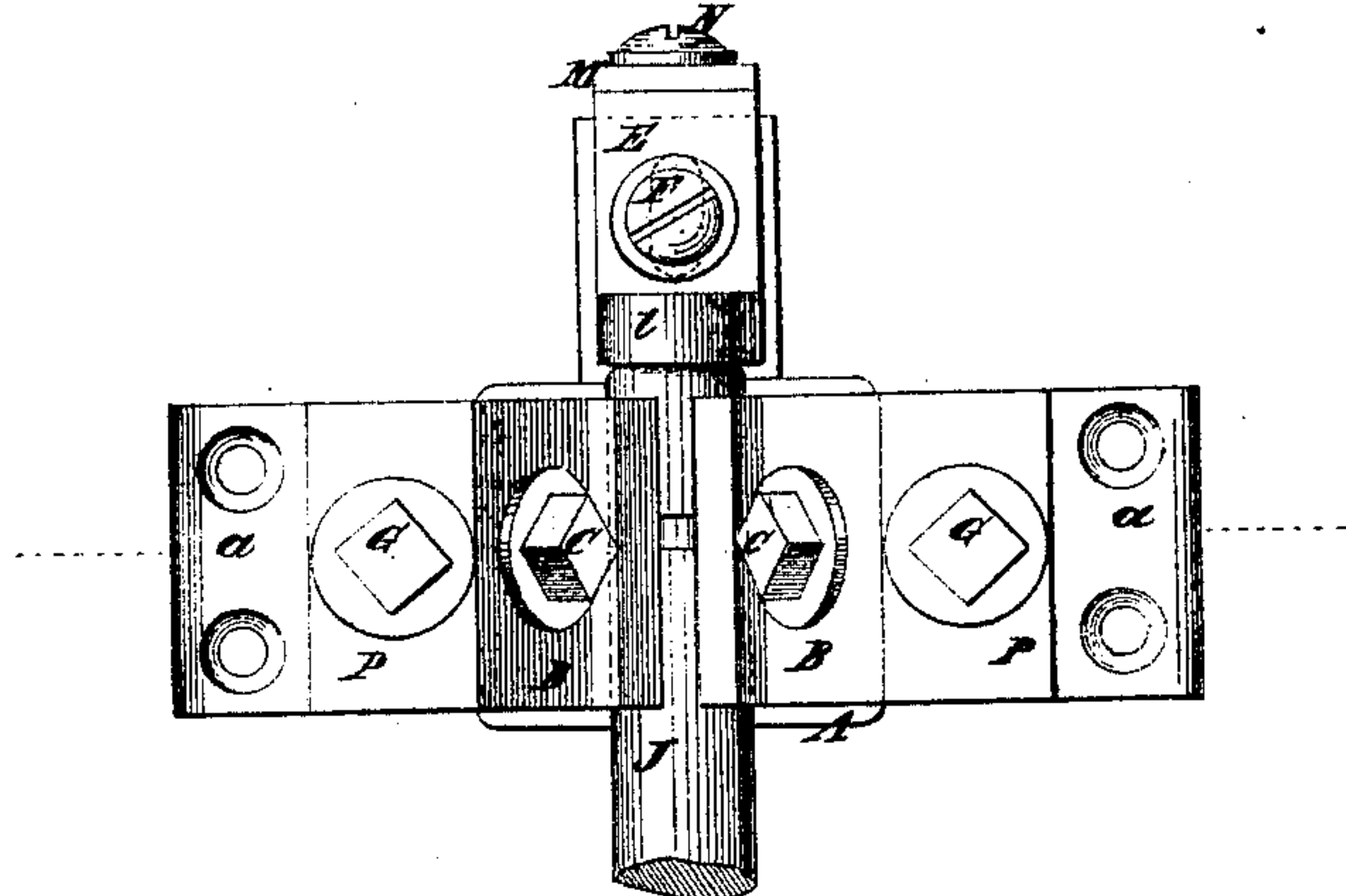


Fig. 2

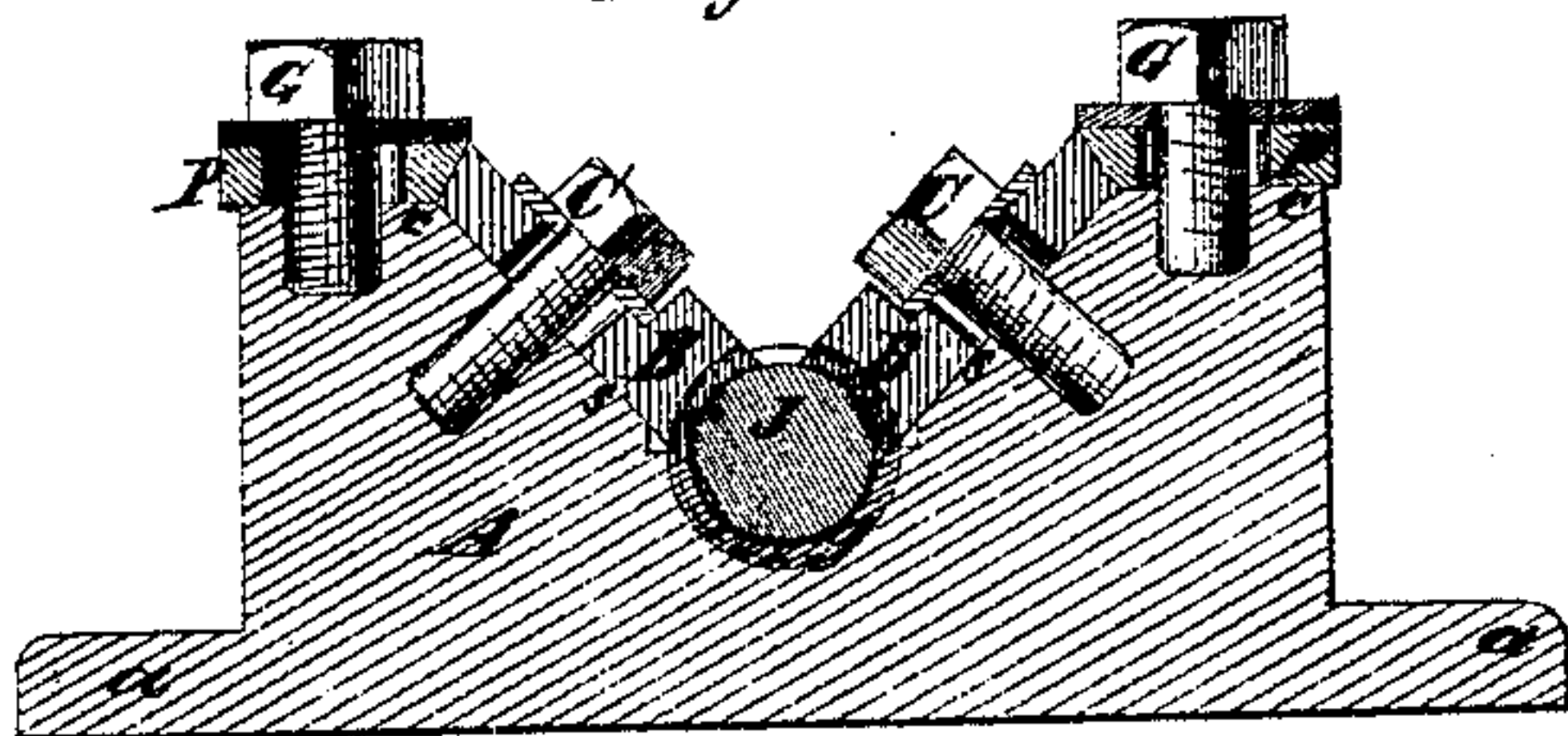
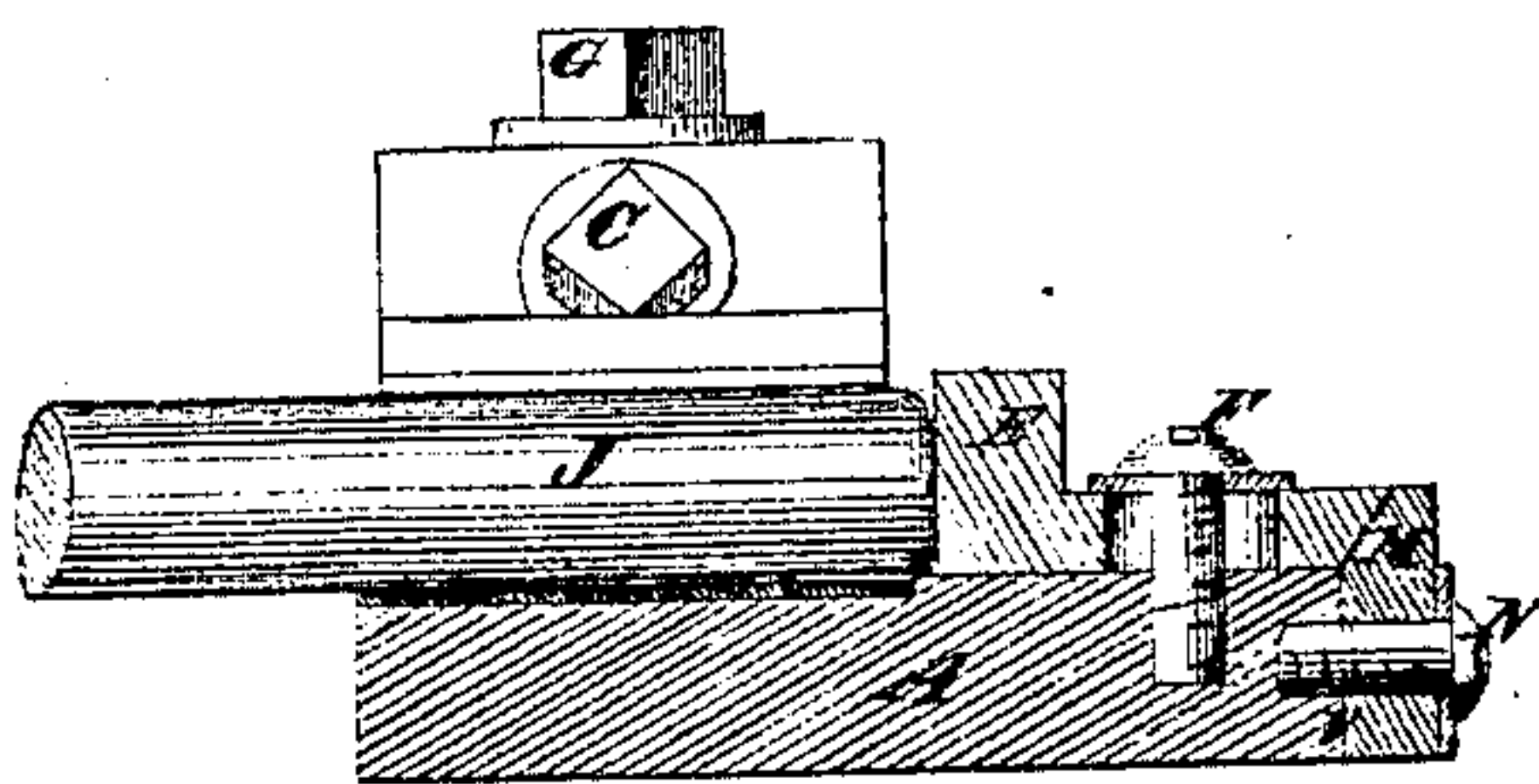


Fig. 3



Witnesses.

Fred Haynes
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SETH C. ELLIS, OF JERSEY CITY, NEW JERSEY.

Letters Patent No. 114,542, dated May 9, 1871.

IMPROVEMENT IN JOURNAL-BOXES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SETH C. ELLIS, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Journal-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

This invention consists in a novel construction of a journal-box with two oppositely-inclined caps, which are secured in place by set-screws, and which, when free from control of said screws, will adjust themselves in such position on the journal as to be efficient in securing the same without producing excessive friction thereon.

It also consists in adjustable abutment-plates employed in connection with such caps, or with other movable bearings or portions thereof for the purpose of securing such bearings or portions very positively and firmly without producing unnecessary pressure thereon.

In the accompanying drawing—

Figure 1 is a plan of my improved journal-box;

Figure 2 is a transverse section of the same; and

Figure 3, a longitudinal section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

A is the base or pillow-block of the journal-box, provided at the bottom with lugs *a a* for the reception of screws, by which it may be secured to any machine.

Extending transversely across the base is a groove or cavity, *g*, which constitutes the fixed portion of the bearing, and which may have a suitable lining of Babbitt or other metal.

From each side of this cavity there extends an inclined plane surface, *s*, to a horizontal upper surface, *c*.

B B are the two caps which form the upper portions of the journal-box, consisting of plates, the bottoms of which are made of suitable form to fit the journal, and may be suitably lined with Babbitt or other metal.

These plates lie upon or against the inclined surfaces *s s*, and are secured thereto by set-screws C C passing through slots provided in them, and screwing into the block or base A.

When the screws C C are slackened the caps B B will slip down the surfaces *s s*, or may be easily adjusted thereon to bring them in contact with the journal, where they may be held down by the set-screws C C without being caused to press unnecessarily upon the journal, and thereby to produce excessive friction thereon.

The two caps, being separately adjustable obliquely,

may be adjusted to compensate for lateral as well as for vertical wear of the journal and bearing.

In order to secure the caps B B very positively in their places, and more positively than the set-screws will secure them, I secure upon the upper surfaces *c c* of the pillow-block the abutment-plates P P, one of which abuts against the upper end of either of the caps B B, the abutting ends of the said plate and cap being so beveled, as shown in fig. 2, that as the cap is adjusted downward the abutment-plate, by being moved forward, may be made to follow into contact with it.

The abutment-plates are secured to the top of the pillow-block by set-screws G G passing through slots in them and screwing into tapped holes in the block.

Similar abutment-plates may be employed in connection with the end bearings of shafts. This is illustrated in figs. 1 and 3, in which there is shown upon the bottom of the pillow-block an end bearing piece, E, which is held down by a set-screw, F, but which is held up toward and in contact with the end of the shaft, toward which it is adjustable horizontally by means of an abutment-piece, M, which is secured by a set-screw, N, to a vertical surface, *v*, on the block by a set-screw, in such manner that its upper end, which is beveled, may abut against the correspondingly-beveled outer end of the bearing piece E.

As the bearing piece E is adjusted horizontally toward the shaft it may be followed up by the vertical adjustment, into contact with it, of the abutment-piece N, which will, when in contact with the bearing piece, effectually secure it.

By this system of adjustable abutment-plates, arranged at an angle to the bearing or portion of a bearing they are to secure, and secured by screws which, while being arranged in or nearly in a direction parallel with the pressure on the bearing, do not press upon the bearing in such manner as to produce friction, very great firmness is given to the bearing without binding, and the obliquity of the abutting surfaces of the bearing piece and abutment-piece enables the adjustment of the one to follow the adjustment of the other without impairing the efficiency of the security.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the oppositely-inclined caps B B and their holding-screws C C with the inclined planes *s s* of the base A, substantially as described.

SETH C. ELLIS.

Witnesses:

HENRY T. BROWN,
FRED. HAYNES.