

D. PETERS.
Clamp-Boxes.

No.150,709.

Patented May 12, 1874.

Fig. 1

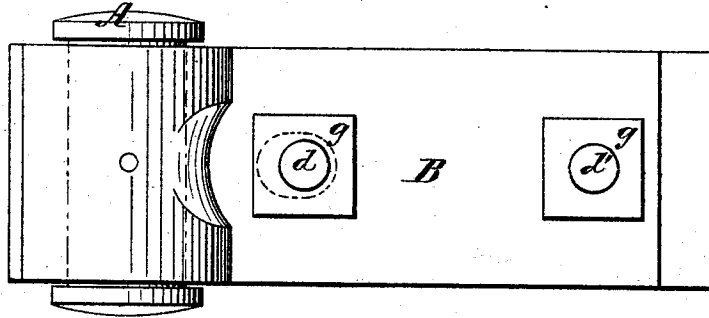


Fig. 2

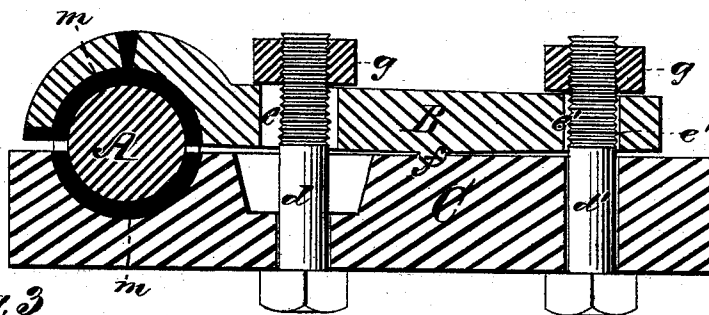


Fig. 3

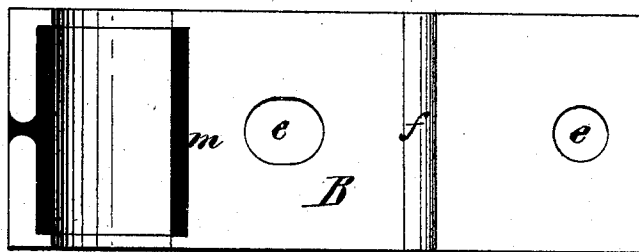
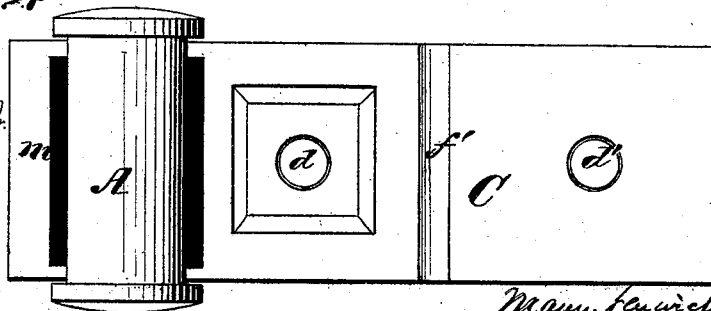


Fig. 4



Witnesses:
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UNITED STATES PATENT OFFICE.

DANIEL PETERS, OF BURLINGTON, IOWA, ASSIGNOR TO HIMSELF AND
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IMPROVEMENT IN CLAMP-BOXES.

Specification forming part of Letters Patent No. **150,709**, dated May 12, 1874; application filed
December 27, 1873.

To all whom it may concern:

Be it known that I, DANIEL PETERS, of Burlington, Des Moines county, State of Iowa, have invented a new and useful Improvement in Clamp-Boxes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a plan view of my improved clamp-box; Fig. 2, a longitudinal central section, showing the parts in working position; Fig. 3, a plan view of the inner face of the cap of the clamp-box, and Fig. 4 a like view of the lower portion of the clamp-box with the cap reversed.

The object of my invention is to provide a clamp-box for shafting which shall permit of a ready and delicate adjustment of the clamp-box cap upon that portion of the shafting received within the clamp-box, as will be hereinafter explained.

Under the old mode of constructing the clamp-box the shaft-bearing is received in the box between the clamp-bolts, and the box is furnished with a packing of babbitt-metal, or paper, or wood, inserted between the upper and lower plates of the box, at points in front and rear of the shaft-bearing, which packing, as wear occurs, must be removed and readjusted at the expense of much labor and trouble.

By my invention the old-fashioned packing between the clamp-box plates is dispensed with; and the adjustment of the box-cap, as wear occurs, can be made instantly, and with exact precision, without the removal of the cap.

By reference to Fig. 2 of the drawings, it will be observed that the shaft-bearing A is received and held in place between the cap B and foundation-plate C of the clamp-box by clamp-bolts *d d'*, which are both located at one and the same side of the shaft-bearing A, as shown. The cap B and plate C, at their forward ends, are properly formed to receive and inclose the shaft-bearing A between them, and are provided, in the ordinary manner, with

babbitt-metal *m*, to prevent undue friction. Centrally, or thereabout, between the bolt-holes *e e'* of the cap B the under or working face of said cap is formed with a ridge, *f*, across it, as clearly shown in Fig. 3. This ridge projects such distance below the inner face of the cap as will admit of any desired depression of the forward end of the cap, in order to adjust the bearings of the shaft-box upon the shafting held therein, and thus compensate for the wear of the several parts, and, at the same time, hold the shaft true and steady within the box. When the cap B is in working position, as shown in Fig. 2, this ridge *f* will seat itself in a depression, *f'*, made in plate C, and thus prevent both endwise displacement and sidewise torsion of the cap. When the clamp-cap B is adjusted as shown in Fig. 2 the only point of bearing and contact between the cap B and plate C is the ridge *f*, the cap being so formed as to make this ridge *f* a fulcrum for the articulation of the cap. In order to effect the requisite adjustment of the clamp-box about the shaft A, and to accommodate the up-and-down movement of the cap, so as not to bind upon the bolts *d d'* in the act of adjustment, the bolt-holes *e e'* of cap B are enlarged, as indicated in Figs. 2 and 3 of the drawing.

To adjust the clamp-box cap to the shaft-bearing A, the bolt *d'* is first loosened; then the bolt *d* is tightened, so as to force down the forward end of the cap to the right adjustment, after which the bolt *d'* is tightened. By this act, which can be done in a moment, as it were, and with no trouble, the proper adjustment can be effected, while at the same time the nuts *g* of the bolts are held in their place, and cannot work loose, owing to the springing of the metal of the cap in front and rear of the ridge *f* against the nuts.

It will be seen that the bottom of the cap B is beveled from a point which is central, or about central, of its length, so that, in some instances, the rear portion of the cap may have full bearing upon the rear portion of the plate C when fully drawn down by the bolt *d'*. These beveled portions of the cap C may be made to diverge from any desired point on the bottom

of the cap which is contained between the bolts d d' , at which point a ridge, f , is formed across the bottom of the cap; and, when the box is in service or working position, this ridge f will seat itself in a depression, f' , made across the plate C, and thus prevent both endwise displacement and sidewise torsion of the cap. By constructing the bottom of the cap with beveled portions in front and rear of the ridge f the metal comprising the cap will be sprung when the nuts are turned down upon

the cap, and thus keep the nuts from working loose.

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

A box-cap, with a bearing, f , between the bolts, substantially as and for the purpose described.

DANIEL PETERS.

Witnesses:

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