W. R. BUSS & A. J. FAIRBANKS.

JOURNAL BOX.

APPLICATION FILED JAN. 19, 1910.

957,186. Patented May 10, 1910.

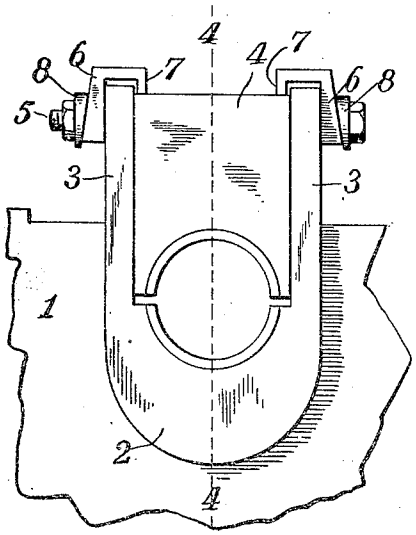

Fig. 1.

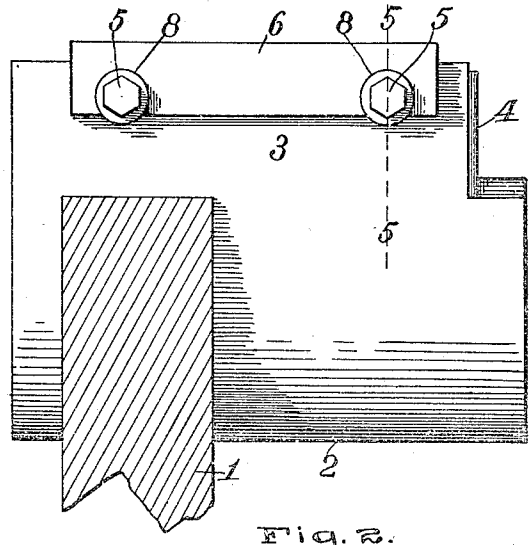

Fig. 2.

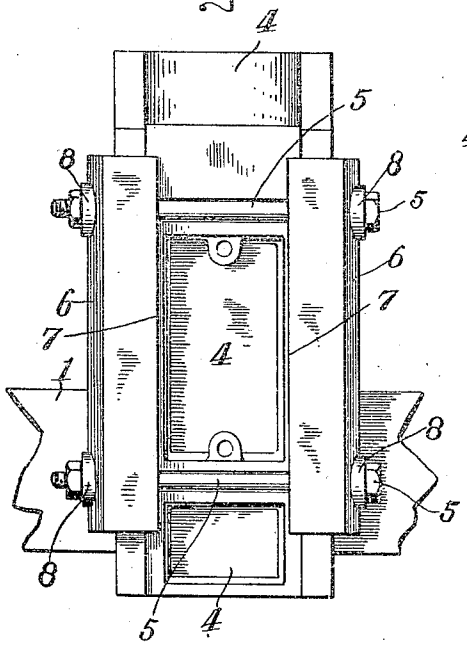

Fig. 3.

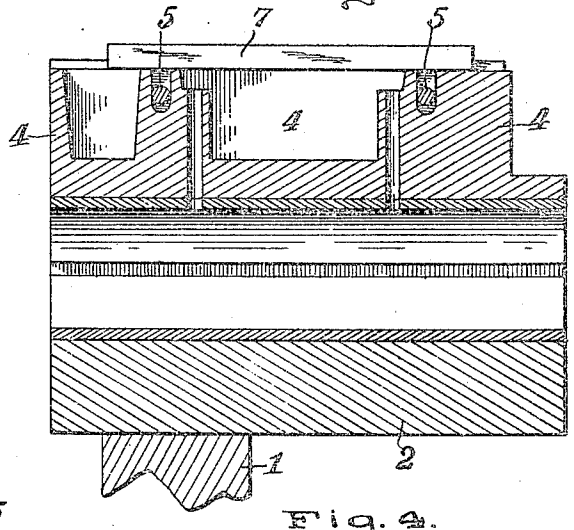

Fig. 4.

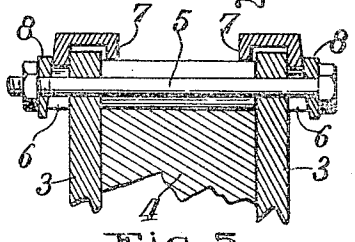

Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX.

957,186. Specification of Letters Patent. Patented May 10, 1910.

Application filed January 19, 1910. Serial No. 538,887.

To all whom it may concern:

Be it known that we, WENDELL R. BUSS, residing at Grand Rapids, in the county of Kent, in the State of Michigan, and ALVA J. FAIRBANKS, residing at Holland, in the county of Ottawa and State of Michigan, have invented certain new and useful Improvements in Journal-Boxes; and we do hereby declare the following to be a full, clear, and exact 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 improvements in journal boxes and more particularly to journal boxes for planing machines, and its object is to provide a journal box that is compact, quickly adjusted, and not liable to be loosened by use, or adjusted too tight by careless workmen, and it consists essentially of a box having parallel upwardly extended jaws embracing the upper part of the box or cap, keys arranged on the outside of the jaws and having holding members extending inward over the top of the same and thence downward to engage and hold the cap of the journal box in place, a bolt fitted within openings in the jaws and extending through slots in the keys and cap of the journal box, said keys also having externally diverging outer surfaces, and washers having correspondingly diverging inner surfaces and vertical external surfaces engaged by the head and nut of the bolt, as will more fully appear by reference to the accompanying drawings in which:

Figure 1 is an end elevation of a device embodying our invention; Fig. 2 a side elevation of the same; Fig. 3 a plan view of the same; Fig. 4 a vertical section of the same on the line 4—4 of Fig. 1; and, Fig. 5 a sectional detail on the line 5—5 of Fig. 2.

Like numbers refer to like parts in all of the figures.

1 represents a portion of the frame of the machine; 2 the lower half of the journal box mounted in the frame and having upwardly extended parallel jaws 3 having parallel vertical inner and outer surfaces. Slidable between these jaws 3 and closely fitted therebetween is the upper part or cap 4 of the journal box having transverse slots to receive the bolts 5, which bolts fit in openings near the upper ends of the jaws 3, and are held from rising by the said jaws. On the outer ends of the bolts are tapered keys 6, the same being vertical on their inner surfaces and downwardly and outwardly inclined at their outer surfaces and provided with open slots to receive the bolts. These keys have holding members 7 extended inward over the top of the jaws 3 and thence downward inside of the same to engage the top of the cap 4 and hold the same down to place. Washers 8 having inner surfaces oppositely inclined to the outer surfaces of the keys are provided, said washers having parallel vertical outer surfaces engaged by the head and nut of the bolt.

In assembling this device after the shaft is in place, the cap is dropped to place and allowed to adjust by gravity only, thus avoiding any excessive tightening of the cap upon the shaft, and insuring an accurate adjustment thereof without special care. The keys are then in like manner dropped to place upon the cap, the bolts inserted through the holes in the jaws, and when tightened, securely hold the cap from displacement, the wedge shape of the keys preventing them from rising and the jaws holding the bolts down in place.

To adjust the device for wear in the event the box becomes loose, all that is necessary is to slack the bolts sufficiently to free the keys, and the cap and keys will automatically adjust to proper position to take up the wear without special care or attention. The jaws 3 are also made thin enough so that they will spring when the bolts are tightened and clamp the upper part of the box therebetween, thus further securing the same in place.

What we claim is:—

1. A journal box, comprising upwardly extended jaws having parallel surfaces, a cap member adjustable between the jaws, a bolt extending through openings in the jaws and held thereby, and keys having oppositely inclined downwardly diverging surfaces engaged and held by the bolt, said keys having inwardly extending holding members engaging the top of the cap.

2. A journal box, comprising a lower member having upwardly extended jaws with parallel vertical surfaces, an upper portion or cap vertically adjustable between the jaws, a bolt extending horizontally through openings in the jaws and held thereby, keys having downwardly diverging outer sur-

faces, inwardly and downwardly extended holding members on the keys engaging the upper portion or cap, and washers having inclined surfaces engaging the keys, and parallel surfaces engaged by the bolt-head and nut.

3. A journal box, comprising a lower box member having upwardly extended jaws with parallel surfaces, an upper box member or cap adjustable between said jaws, a bolt extending through openings in the jaws and through a slot in the upper box member or cap, keys having slots to receive the bolts and downwardly diverging outer surfaces, inwardly and downwardly extended holding members on the keys engaging the top of the box, and washers on the bolt having oppositely inclined surfaces to engage the keys and parallel surfaces engaged by the bolt-head and nut.

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

WENDELL R. BUSS,
ALVA J. FAIRBANKS.

Witnesses:
C. VER SCHURE,
M. EVERETT DICK.