W. H. WINBORNE.

JOURNAL BOX FOR SIDE HEAD FRAMES.

APPLICATION FILED AUG. 10, 1908.

916,242. Patented Mar. 23, 1909.

Fig. 1.

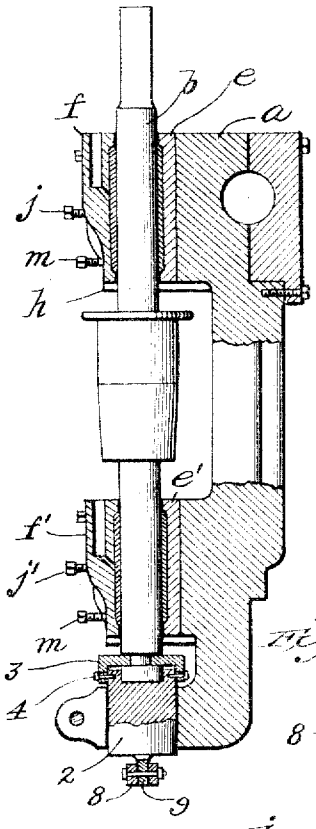


Fig. 2.

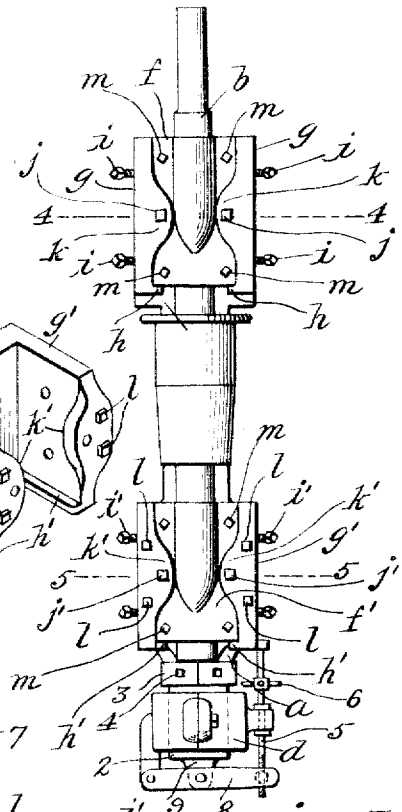


Fig. 3.

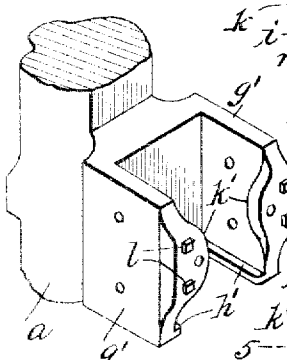


Fig. 6.

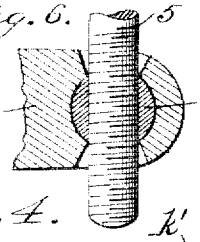


Fig. 4.

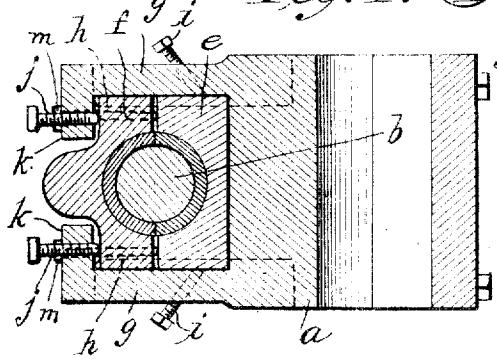
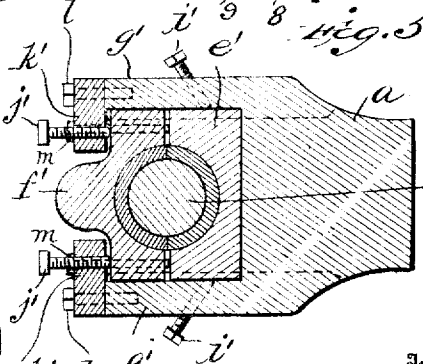


Fig. 5.



Witnesses

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JOURNAL-BOX FOR SIDE-HEAD FRAMES.

No. 916,242. Specification of Letters Patent. Patented March 23, 1909.

Application filed August 10, 1908. Serial No. 447,771.

To all whom it may concern:

Be it known that I, WALLACE H. WINBORNE, a citizen of the United States of America, and a resident of Conway, county of Horry, State of South Carolina, have invented certain new and useful Improvements in Journal-Boxes for Side-Head Frames, of which the following is a full and clear specification, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical sectional view of a device embodying my invention; Fig. 2 is a front elevation thereof; Fig. 3 is a detail perspective view of the lower bearing box; Fig. 4 is a horizontal section on the line 4—4 of Fig. 2; and, Fig. 5 is a horizontal section on the line 5—5 of Fig. 2. Fig. 6 is a detailed enlarged vertical section of the connection between the adjusting rod 5 and the lever 8.

This invention has relation to the means for mounting the vertical cutter-carrying shaft in the side head frame of a planing or matching machine and the special object of the present invention is to provide means for readily removing the bearing blocks so that the babbitts may be renewed without appreciable loss of time, as more fully hereinafter set forth.

Referring to the drawings by reference letters, *a* designates the vertical side head frame which is adapted to be supported in the usual way and in which is journaled the vertical cutter-carrying shaft *b*. This shaft is adapted to be supported at its lower end *c* by a shoe of any suitable structure and is adapted also to be raised and lowered by a suitable device attached to its lower end and mounted on the depending arm *d* of the head frame.

The upper bearing consists of a pair of boxes *e* and *f* carrying the Babbitt metal bearings and adapted to fit snugly between the forwardly extending flanges *g* cast integral with the head frame. These flanges *g* are provided with inwardly-turned flanges *h* for supporting the boxes vertically. The inner box *e* is clamped in against the head frame by means of two pairs of screws *i* tapped obliquely through the flanges *g* and adapted to bear upon the opposite sides of the bearing block. The outer bearing is clamped in place upon the inner bearing and around the shaft by means of set screws *j* tapped through overhanging flanges *k* on the flanges *g*.

The lower bearing is constructed substantially like the upper bearing namely with two boxes *e'* and *f'* confined between vertical flanges *g'* cast integral with the head frame and provided with inwardly-turned supporting flanges *h'*, two pairs of oblique set screws *i'* to hold the inner box, set screws *j'* for holding the outer box, and overhanging flanges *k'* for supporting these latter screws, these flanges *k'* being removably fastened in place by screw bolts *l*. Suitable set screws *m* are tapped through the outer boxes or caps *f* and *f'* to regulate the clamping action of the bearing boxes upon the shaft, that is, to properly space them with reference to the shaft.

To remove the bearing box I proceed as follows:—I first loosen the two set screws *j* and then remove the two set screws *m* just below whereupon the cap or outer box of the upper bearing may be slid out upwardly. Then the cap or outer box of the lower bearing may be removed by first removing the two lugs or flanges *k'* by means of the clamping screws *l* whereupon the outer box may be withdrawn frontward from between the side flanges *g'*. The spindle may then be removed, and subsequently the two rear or inner bearings *e* and *e'* may be readily removed by first slackening the oblique set screws *i* and *i'*.

It will be observed that when the babbitts become worn the bearing blocks may be readily removed and a new set with new babbitts (kept in readiness for the occasion) may be put in place. In this way, that is by keeping on hand one or more extra sets of bearings with new babbitts in them, the bearings may be renewed in any one of the side heads with the loss of but a few minutes time whereby with the constructions heretofore in use the time required for renewing the babbitts has involved a material loss. It will be observed also that with my construction the spindle may be raised and lowered without stopping the machine and that also the spindle may always be kept plumb thus permitting the stock to be matched up at all times. I prefer using the means shown for raising and lowering the shaft. These means consist of a shoe 2 vertically slidable in the frame and having adjustably secured on its upper end a two-part cap 3 which engages a neck or groove formed in the lower end of the shaft and is adjustably clamped to the upper end of the shoe by screw bolts 4, thus rotatably supporting the shaft on the shoe. The shoe is raised and lowered by means of a ver-

tical screw rod 5 suitably journaled in the frame and provided with a hand wheel 6 for rotating it and having its lower threaded end working through a pivotally mounted nut 7 in the free end of a lever 8 pivoted at its other end to the frame and also pivoted at a point between its ends to a depending lug 9 on the shoe. With this simple device the shoe may be raised and lowered without stopping the machine.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with a side head frame and a spindle, of upper and lower journal boxes each consisting of a pair of bearing blocks carrying babbitts, side flanges on the head frame embracing the blocks and having overhanging flanges extending over in front of the outer box, set screws j, j', in said overhanging flanges engaging the front blocks, set screws i, i', in the said side flanges engaging the inner bearing-block, the overhanging flanges on the lower one of the boxes being removable, and a series of set screws m tapped through the outer box or cap of each bearing, all for the purpose set forth.

2. In combination, a side head frame, a vertical spindle, two bearing blocks, an upper bearing for the spindle, consisting of side flanges on the head frame provided with inwardly extending lower flanges and overhanging outer flanges and a suitable series of screw bolts for holding the two bearing blocks adjustably and removably in position, a lower bearing consisting of side flanges on the head frame provided with inwardly extending lower flanges and overhanging outer flanges, these latter flanges being removable, and means below for supporting and adjusting the spindle in said bearings.

3. In combination, a frame, a vertical spindle, an upper bearing consisting of a pair of bearing blocks and side flanges g for removably holding the bearing blocks in position, flanges h on said flanges g for vertically supporting the bearing blocks, the outer bearing block or cap being removable upwardly from its support, and a lower bearing consisting of a pair of bearing blocks and means for supporting them vertically and laterally, the supporting means embodying means whereby the blocks may be removed frontward from the bearings, substantially as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 17 day of July 1908.

W. H. WINBORNE.

Witnesses:
R. T. COOKE,
H. W. AMBROSE.