F. W. Howe,

Shaft Hanger,

No. 21,640, Patented Sept. 28, 1858.

Fig. 4.

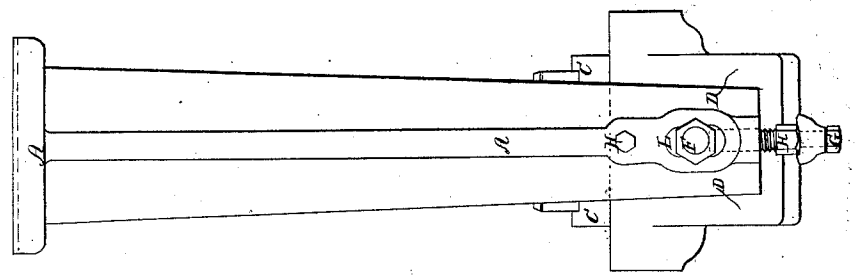


Fig. 3.

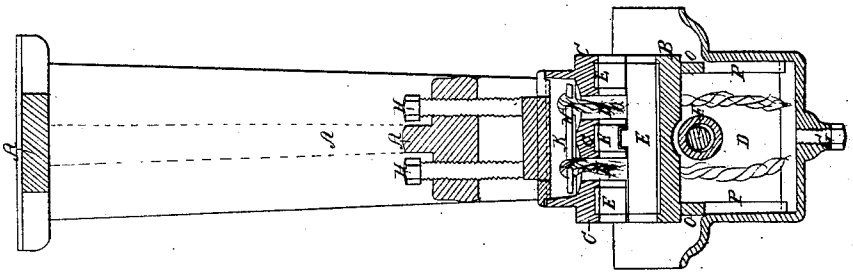


Fig. 2

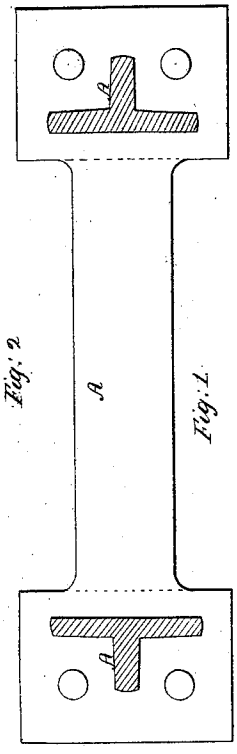
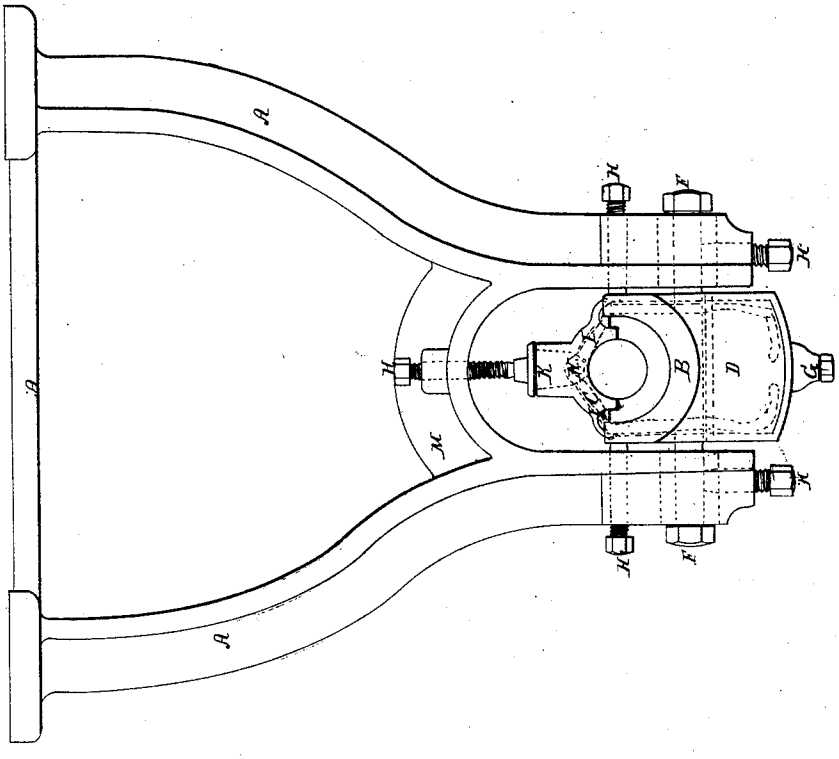


Fig. 1.



UNITED STATES PATENT OFFICE.

FREDERIC W. HOWE, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE NEWARK MACHINE COMPANY, OF SAME PLACE.

HANGER AND BOX FOR SHAFTING.

Specification of Letters Patent No. 21,640, dated September 28, 1858.

To all whom it may concern:

Be it known that I, FREDERIC W. HOWE, of the city of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Hangers and Boxes for Shafting; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view; Fig. 2 a view of the upper part showing the section of the arms; Fig. 3 an end sectional view showing the inside of the box for the shafting to turn in, the oil box below, and the wicking; Fig. 4 is an end view.

The same letters represent the same parts in the different figures.

A, A, A, is the hanger, fastened to a beam or joist above, by screws or bolts. It is open at the bottom, as shown by the figure; the arms being connected by the brace M.

B, B, is the box for the shafting to turn in, resting on the oil box.

C, C, is the cap of the box.

D, D, D, is the oil box.

E, E, E, is the Babbitt metal which lines the box inside.

F, F, F, is the bolt supporting the oil box, by which the latter is suspended to the hanger. This bolt passes through the oil box in and through a tube formed in the oil box and being part of the same, so that the bolt has no connection with the contents of the oil box, and the oil in the latter has no chance of escaping by way of the bolt.

G, is a stop screw in the bottom of the oil box, for drawing off the oil when desired.

H, H, H, are set screws for adjusting the position of the box in the hanger. The side screws are used to adjust the box from side to side, toward the one arm of the hanger, or the other. The bottom screws are used to raise or lower the box in the hanger, by raising or lowering the bolt F, on which it is suspended, which bolt for that purpose, passes through perpendicular slots, L, in the arms of the hanger; the top screws are used to fix the box in a firm position upon the bolt F, and to adjust the direction of the box in line with the shaft, which is effected by the box having a capacity of revolving on the bolt F.

I, I, (Fig. 3) are spaces for wicking, showing the wicks in them for self oiling, which wicks pass around a stick N, in the tallow box K, for the purpose of retaining them in their proper position. The tallow box, K, K, immediately above the shafting contains tallow to assist in lubricating the shaft, in case of disarrangement of the wicks.

Hangers as usually made, are fastened to the timbers or joists of the floor above, on the underside of the same, and being once set in line, have no provision made for readjustment in case of the settling of the floors from great weights or other strains forcing the shafting out of line; but from the mode of construction of my improved hangers, the box can be readily moved a little—either up or down, or horizontal at right angles to the line of shafting—as above explained; thus enabling the engineer to bring the shafting again into line, when it has from any cause become deranged.

The oil box extends on each side beyond the box in which the shafting turns, and thus acts as a dripper, catching the oil which oozes out of the box, and using it again and again, the wick taking it up by its capillary attraction; and the oil box also, at the same time, prevents the oil from dropping about the floors, &c., creating dirt and waste.

A great advantage is derived from making the hanger open at the bottom, on account of the increased facility of putting up or taking down the shafting. By taking out the bolt F, the box can be removed from the hanger, and the shafting raised to its place, and then the box adjusted to it; or, if the shafting is up, and it is desired to take it down, it may be taken down by the same process of removing the bolt. With the common hanger, the shafting cannot be taken down without, either taking down the hanger itself, or raising the shafting over a hook or something analogous, which is often difficult of accomplishment where there is a pulley or a wheel attached.

It may be proper to observe that, as the

box B, B, is smaller than the oil box, and sits in the top of the oil box, it should be provided with feet O, O, (Fig. 3) or some analogous device, to rest on small shoulders or pedestals P, P, arranged in the oil box, so as to keep it steadily and firmly in its place.

I do not claim the self-oiling of the boxes nor the adjustments of the boxes, nor do I claim by itself the device of a hanger open at the bottom so as to receive the shaft and its box from below, but

I do claim—

In combination with such a hanger the self adjusting box in the manner set forth.

FREDERIC W. HOWE.

Witnesses:

JOSEPH P. BRADLEY,

GEO. H. RENTON.