A. B. Couch,

Shaft Hanger.

No. 113,744. Patented Apr. 18. 1871.

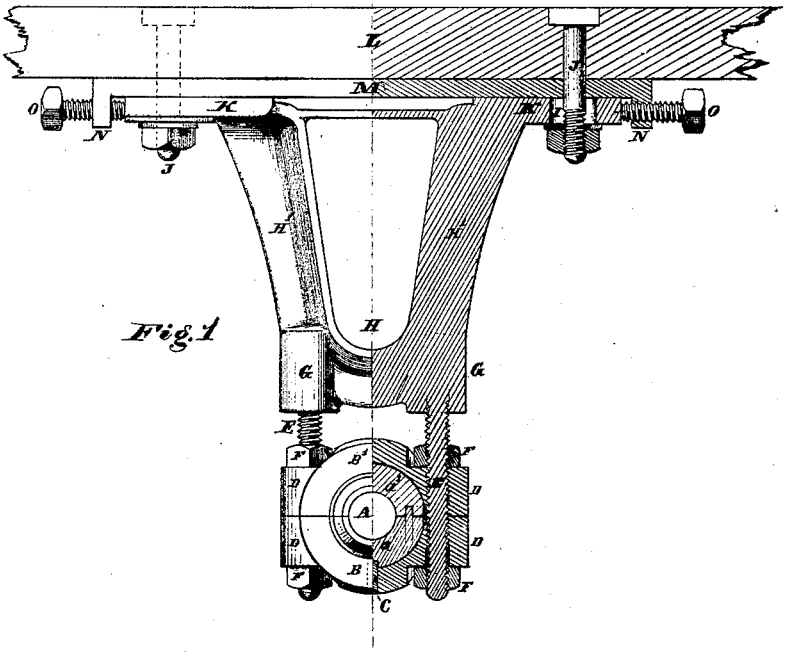
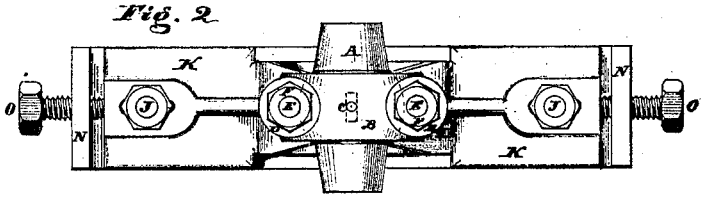


Fig. 1

Fig. 2



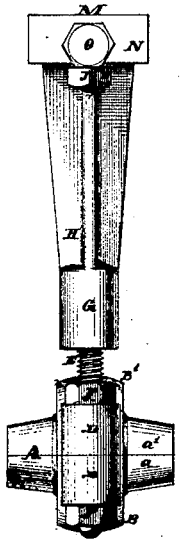


Fig. 3

Witnesses

Chas. H. Burleigh

A. E. Pierce

Inventor

Alfred B. Couch

United States Patent Office.

ALFRED B. COUCH, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 113,744, dated April 18, 1871.

IMPROVEMENT IN HANGERS FOR REVOLVING SHAFTING.

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, ALFRED B. COUCH, of the city and county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Hangers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing which forms a part of this specification, in which—

Figure 1 represents a half side and half sectional view of my improved hanger;

Figure 2 represents a bottom view of the same; and

Figure 3 represents an end view of the same.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

My invention relates to that class of supports for revolving shafting known as hangers, and consists in certain improvements in the construction thereof, as hereinafter described, whereby great strength, perfect adjustability, and superior convenience may be obtained at small cost.

In the drawing—

A indicates the journal-box in which the shafting turns.

Said box A is made in two halves, *a a'*, which are fitted together with shoulders or pins, to prevent them from slipping upon each other. At the central part the box A is enlarged into a spherical form, as indicated.

The journal-box A is held in a circular clasp, formed in two halves, B B', which surround the central part of the box.

The interior of the clasp is so fitted to the spherical part of the journal-box that when the halves B B' are drawn tightly together the journal-box will have just sufficient room to turn freely between them.

A pin, C, is firmly set in the center of the lower half B of the clasp, the point of which projects into a longitudinal groove formed in the lower side *a* of the journal-box, and thereby prevents the journal-box from turning about that axis of the sphere which coincides with the longitudinal axis of the bearing, while at the same time it permits it to turn to a sufficient extent about any other axis, thus allowing the journal-box A to turn to a limited extent in any direction except that in which the shafting revolves.

Lugs D D are formed upon the halves B B' of the clasp, through which pass loosely rods E, which are provided with screw-threads throughout their whole length, and upon which nuts F are arranged at each side of the lugs D.

At one end the rods E are cast into or otherwise firmly attached to bosses G, formed at the lower end of the supporting-arm H.

The arm H is formed with two branches, H', which are set bracing against each other, and are joined at each end in the manner shown, thus combining strength and lightness.

The arm H is cast upon an adjusting-plate, K, provided with longitudinal slots I, through which are arranged the bolts J, which secure the hanger to the timber L, wall, or other support upon which it is arranged.

Between the adjusting-plate K and timber L I arrange a bolster-plate, M, which plate is of greater length than the adjusting-plate K, and is provided with lugs N at each end, through which are arranged adjusting-screws O, the ends of which set against the ends of the adjusting-plate K, as fully shown in the drawing.

The opening in the bolster-plate M, through which the bolts J pass, is not slotted, but fits closely upon said bolts, so that the bolster-plate M is retained in a stationary position as regards the timber L or wall.

The operation of the parts thus constructed is as follows:

By removing the two lower nuts, F, the halves of the journal-box A and clasp B may be separated, when the shaft can be raised to its place from below, and the parts respectively replaced. Then, by turning the nuts F the vertical position of the journal-box A may be adjusted to any degree of nicety, and, when properly adjusted, by tightening all the nuts F upon the lugs D, the upper and lower nuts F act against each other in the manner of check-nut upon the rods E, and retain the clasps B B' rigidly in position, while the spherical form of the middle portion of the journal-box A permits of such slight rolling motion as may be required to compensate for irregularities in the revolving shaft.

By loosening the nuts upon the bolts J a very ready and accurate lateral adjustment may be made by turning the adjusting-screw O at the ends of the bolster-plate M.

In the foregoing description and drawing the hanger has been considered as depending from a horizontal surface above the shaft; it is evident, however, that the hanger may be used with equal facility when set in any other position, as a bracket or standard.

Among the advantages incident to the manner of construction herein shown and described may be mentioned the great strength obtained against strains, upward, downward, or lateral; the perfect adjustability of the parts and entire rigidity when adjusted; also, the great convenience with which the shaft can be put up and taken down, and the economy and facility with which the hangers can be manufactured; all of which advantages render my improved hanger of great utility and practical value.

I do not claim the spherical journal-box with its clasp, as said devices are well known; but

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

1. The rods E cast into the arm H, for the support and adjustment of a journal-box.

2. The combination with the arm H and its supporting-bolts J, of the bolster-plate M, set-screws O, and rods E, for the support and adjustment of a journal-box, substantially as set forth.

3. The combination, with the arm H, of rods E, nuts F, clasp B B′, and journal-box A, substantially as and for the purposes set forth.

Witnesses: ALFRED B. COUCH.

CHAS. H. BURLEIGH,

A. E. PEIRCE.