

990,571.

~~WITNESSES~~

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La Barre

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CHRISTOPHER W. LEVALLEY, OF MILWAUKEE, WISCONSIN.

SHAFT-HANGER.

990,571.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed November 30, 1903. Serial No. 465,259.

To all whom it may concern:

Be it known that I, CHRISTOPHER W. LEVALLEY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in and Relating to Shaft-Hangers, of which the following is a specification.

My invention relates to hangers or supports for line-shafting, and more particularly to shaft hangers the parts of which are constructed of bar steel and are so fabricated and assembled as to produce hangers of relatively light weight yet possessing great strength, that are of simple construction and that may be easily set up, or taken apart for storage or transportation.

In the accompanying drawings I have represented my present invention as embodied in a ceiling or overhead shaft-hanger arranged to be supported from a metal I-beam; but it is apparent that by inverting the parts of the hanger a floor bracket could be produced, so that, therefore, my invention is not to be limited in its useful applications to the exact construction and arrangement shown.

In the drawings Figure 1 is an elevation of a shaft-hanger embodying my improvements. Fig. 2 is a side or edge view of the same. Fig. 3 is a cross section of one of the side members, taken on the line 3—3 of Fig. 1. Fig. 4 is a detached view, in elevation, of one of the guide and brace members designated 12, 13.

The shaft-hanger that I have illustrated embodies two side members, two cross members extending between the side members, these four parts inclosing a space in which is situated the shaft, and the supports for the bearing of the shaft carried by the cross members. The side members may each be formed of a plurality of parts united by bolts so as to be extensible, and this is the construction I have illustrated. But as the hanger when set up and in use is a rigid structure, it is apparent that, so far as some of the features of my invention are concerned, it is immaterial whether the side members are of composite construction and extensible as to their length, or of unitary and fixed construction. The composite construction is for many purposes preferred, and the advantages thereof are set forth in my Patent No. 734,902 of July 28, 1903.

As represented in the drawings each side

member of the hanger comprises a part, 1, having an angularly arranged foot, 2. To complete one of the side members, the one to the right in Fig. 1, there is combined with the part 1, and united thereto by the bolts 3, a bar 4, to the outer end of which latter is secured the lower or outer cross piece, 5. The parts 4 and 5 are preferably integral being formed out of bar steel. One of the supports, 6, for the shaft bearing is mounted in the cross piece 5. The other side member, the one to the left in Fig. 1, is formed of a part 1, and a bar, 8, united thereto by bolts 3. This side member is shorter than the other, terminating some distance above or away from the cross piece, 5, so that there is left a side opening through the side member and into the space in which the shaft, A, is located, disposed above the bottom cross piece, 5, and through which the shaft may be passed when being set up or taken down. The side entrance or opening just described is closed by a plate or bar, 9, that is secured, by bolts 10 or otherwise, to the end of the bar 8, and to an up- or in-turned end 7 of the cross piece, 5. This connecting piece 9 unites the lower cross member with the shorter side member; or, when secured in place, it and the part, 7, may be considered as parts of one of the side members. The inner or middle cross member 11 extends between the side members and carries the upper support, 6', for the shaft bearing.

The side guides for the shaft bearing, 12, are secured respectively to the side bar, 4, and the closing bar or plate 9. The inner ends of the guides, 12, are extended to constitute braces, 13, for the middle cross piece to which they are united. Opposite the braces, 13, are arranged other braces 14, extended between and united to the cross piece and the side bars of the hanger. It will be observed that the shorter side piece of the hanger extends beyond the intermediate cross bar 11 sufficiently far to constitute a support for the upper end of the connecting piece 9 which is bolted thereto, and, since it lies flat against the said extended end of the side member, is supported by the latter laterally. The said projecting end of the side bar not only serves as a backing or transverse support for the connecting piece, but also as a backing for the guide and brace designated by the reference numerals 12 and 13.

All of the parts of the hanger may be constructed out of flat bar steel, but I prefer that the parts, 1, of the side members should be rolled or shaped so as to have the grooved or depressed middle portions, 15, in order to stiffen the side members, and adapt the hanger to the better resist the side strains to which it may be subjected.

It is often desirable to suspend a shaft-hanger from a steel beam of I or other flanged construction, and I have devised means for doing this.

B represents an I-beam, the lower, flanged edge of which is exposed. I secure a wooden bar, 16, to the angular portions or feet, 2, of the side members of the hanger by bolts or otherwise, and then attach this wooden bar to the under side of the beam by means of the channel-shaped clamps, 17, and the bolts 18 which pass through the said bar and the clamp and serve to draw the latter toward each other and into close engagement with the flanges of the beam, the angular feet portions of the shaft hanger, and the bar 16.

The advantages incident to my invention will be apparent to those skilled in the art to which it belongs without requiring a detailed statement of them herein.

What I claim is:

1. A shaft-hanger comprising a pair of side members, a pair of cross members extending between the side members, the guides 12 for the shaft bearing, and the braces 13 for the inner cross bar formed integral with the guides, substantially as set forth.

2. A shaft hanger comprising a pair of side members, an outer cross member and

an intermediate cross member, these parts inclosing a space in which is located the shaft-bearing, one of the side members extending beyond the intermediate cross member but terminating before it reaches the outer cross member, while the other side member extends to and carries the outer cross member, and guides for the shaft-bearing located in the said inclosed space, one of the guides bridging the opening between the end of the shorter side member and the outer cross member and being connected with such end, which serves as a backing or support therefor.

3. A shaft hanger comprising a pair of side members, an outer cross member, and an intermediate cross member, these parts inclosing a space in which is located the shaft-bearing, one of the side members extending to and carrying the outer cross member and the other being shorter and terminating before it reaches the said cross member but extending beyond the intermediate cross member, thus leaving a side opening into the said inclosed space, a connecting piece between the end of the shorter side member and the outer cross member, and guides for the shaft-bearing and braces for the intermediate cross member, the said guides and braces being integral, and the said projecting end of the shorter side member constituting a backing or lateral support for the said connecting piece and for one of the guides and braces, substantially as set forth.

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Witnesses:

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