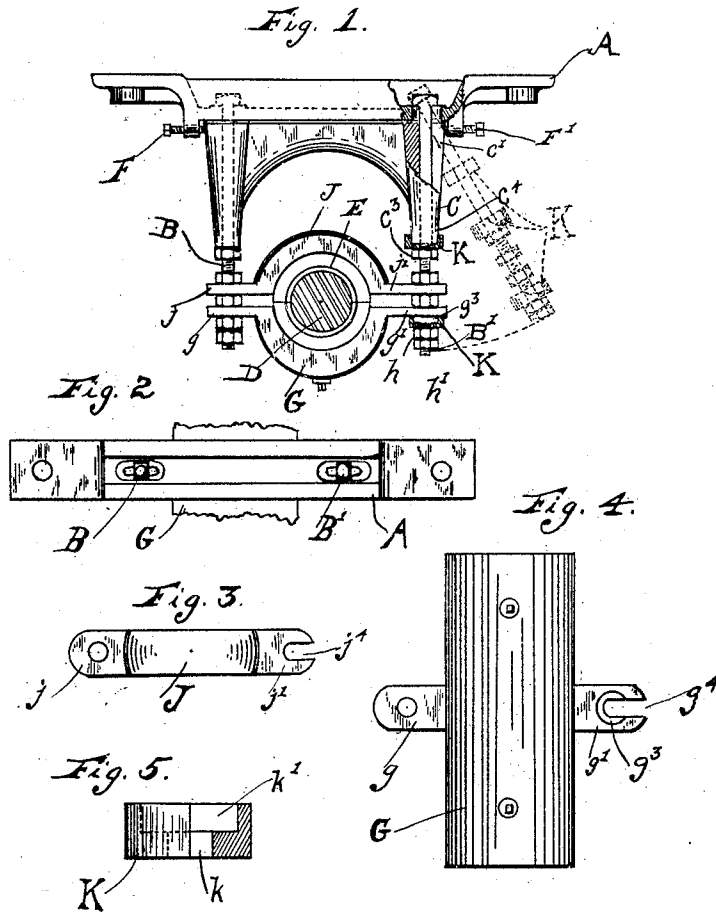


C. SHERWOOD.
ADJUSTABLE SHAFT HANGER.
APPLICATION FILED JAN. 13, 1921.

1,374,865.

Patented Apr. 12, 1921.



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BY

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CAREY SHERWOOD, OF LOWELL, MASSACHUSETTS.

ADJUSTABLE SHAFT-HANGER.

1,374,865.

Specification of Letters Patent.

Patented Apr. 12, 1921.

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To all whom it may concern:

Be it known that I, CAREY SHERWOOD, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Adjustable Shaft-Hangers, of which the following is a specification.

This invention relates to adjustable shaft-hangers and is an improvement on the hanger shown and described in U. S. Letters Patent, No. 1,221,233, granted to me April 3, 1917; and may be used with any of the features of the invention shown in said patent, except as hereinafter noted.

The object of this invention is to enable one of the normally vertical bolts, which support the journal-box and drip-receiver, to be swung laterally outward without entirely removing the nuts therefrom or moving any other part of the hanger. By then loosening one nut on the other bolt, the upper yoke and the upper half of the drip-receiver may be turned on said last named bolt from their normal position sufficiently to allow the upper half of the journal-box to be removed, and a new shaft to be passed between the bolt and the drip-receiver into the place of a broken shaft or a shaft-section desired to be removed from any cause, as in changing the pulleys on a counter-shaft.

Obviously, it is not necessary that the bolts should fit exactly the holes in the yokes or arms of the drip-receivers where lock-nuts are used, because the locks of the latter will position and retain in position the yoke when adjusted for use. Instead of the lock-nuts, shown in the patent referred to, provided with a cylindrical projection which entered and filled a counterbore formed at the inner end of the slot and had some tendency to split the yoke, I provide the lower side of the lower yoke with an arc-shaped boss at the inner end of the slot, which receives the vertical bolt, said slot being concentric with the normal position of said bolt, and I provide a cup which receives and fits said boss and has an opening to allow the said bolt to pass through it, so that when a nut on said bolt below said cup is turned up against said cup, the bolt is held immovably in its normal position. Obviously, when the lower yoke and the bolt are in their proper relative positions, no provision is necessary to prevent the upper yoke from getting out of position.

In the accompanying drawing, Figure 1, is a side elevation of my improved shaft-hanger, the foot, extension, upper yoke, and lock-cup being partly in section at the right of the figure and the bolt at the right being shown also in dotted lines in position it occupies when removing or replacing a shaft, Fig. 2, a plan of the hanger and of a part of the dripper; Fig. 3, a plan of the upper yoke; Fig. 4, a reversed plan of the dripper; Fig. 5, represents a lock-cup, the left half in elevation, the right half in vertical central section.

The foot or base A; bolts B B¹; extension C; shaft D; journal-box E; horizontal adjusting screws F F¹; drip-receiver or journal-box holder G having arms g g¹; the yoke J and its arms j j¹:—these parts are or may be in the form and function like the parts designated by like letters of reference in said patent, except as is herein specified.

One side of the extension C is slotted from the hole c¹ through which the bolt B¹ passes from top to bottom of said hole so that said bolt may be swung laterally outward into the position shown in dotted lines in Fig. 1, without removing any of the nuts or lock-cups therefrom. The upper yoke may then be swung on the bolt B far enough to allow a shaft to be passed between the lower end of the bolt B¹ and the drip-receiver, the bolt being conveniently held in this position, while the change is being made, by moving the lock-cup up on said bolts until said cup rests against said extension C.

One end of the upper yoke and the corresponding arm of the drip-receiver are slotted outwardly at g⁴ j⁴ from the bolt holes to allow the bolt B¹ to be swung outward, but inasmuch as the drip-receiver G does not need to be removed after being put in proper position, only one of its arms needs to be slotted for this purpose.

To hold the drip-receiver G and yoke J rigidly in place when in normal position I may use lock-nuts like those shown in said patent to enter corresponding holes in the parts to be locked; but I prefer for reasons as stated above to use lock-cups K such as are shown in Fig. 5, having a central opening k to receive and fit the bolt B¹ and counterbored at k¹ to fit an annular boss g³ on the under side of the arm g¹ and the lower end of the slotted tubular side c⁴ of the extension C.

By internally threading the opening k,

the cups may serve the purpose of check-nuts or dispense with the need of other nuts to hold them in place. I have represented these cups K as retained in place by nuts
 5 $c^3 \frac{1}{2}$ and check-nut $\frac{1}{2}$.

By omitting the thread from the cup it may be more easily slipped up on the bolt B^1 , to hold the latter in its swung out position.

10 It will be seen that the lock-cup has the advantage over the lock-nut, of preventing splitting of the yoke as well as of locking the bolt, in normal position.

I claim as my invention:—

15 1. The combination of a shaft-hanger, having vertical bolt-holes, bolts arranged in said holes, said hanger being laterally slotted at one side from the adjacent bolt-hole, and two yokes each having holes to receive
 20 said bolts, and each having a longitudinal slot extending from a bolt hole to the end of the yoke, at the slotted side of said hanger, to allow the corresponding bolts to be swung laterally out of all said slots and
 25 the upper of said yokes to be turned on the other of said bolts, to enable said shaft to be passed between said lower yoke, and the lower end of said swinging bolt.

30 2. The combination of a shaft-hanger, having vertical bolt-holes, bolts arranged in said holes, said hanger being laterally slotted at one side from the adjacent bolt-holes, two yokes each having holes to receive said bolts, and each having a longitudinal slot
 35 extending from a bolt-hole to the end of the yoke, at the slotted side of said hanger, to allow the corresponding bolts to be

swung laterally out of all said slots and the upper of said yokes to be turned on the other of said bolts, to enable said shaft to
 40 be passed between said lower yoke, and the lower end of said swinging bolt, and means for preventing said last named bolt from moving in said slots.

3. The combination of a shaft-hanger, 45 having vertical bolt-holes, bolts arranged in said holes, said hanger being laterally slotted at one side from the adjacent bolt-hole, two yokes each having holes to receive said bolts, and each having a longitudinal slot
 50 extending from a bolt-hole to the end of the yoke, at the slotted side of said hanger, to allow the corresponding bolts to be swung laterally out of all said slots and the upper of said yokes to be turned on the
 55 other of said bolts, to enable said shaft to be passed between said lower yoke, and the lower end of said swinging bolt, one of said yokes having an arc-shaped boss at its inner end and a lock-cup, having a moving
 60 fit on said swinging bolt, and adapted to surround and fit said boss, and to prevent splitting said yoke.

4. The combination of a shaft-hanger having downwardly projecting sides and
 65 vertical bolt-holes, and a lateral slot, to allow a bolt, arranged in said bolt-hole, to be swung outward through said slot, and a cup having a moving fit on said bolt, adapted to receive the lower end of said downwardly
 70 projecting side of said hanger, to prevent said bolt from swinging outward.

CAREY SHERWOOD.