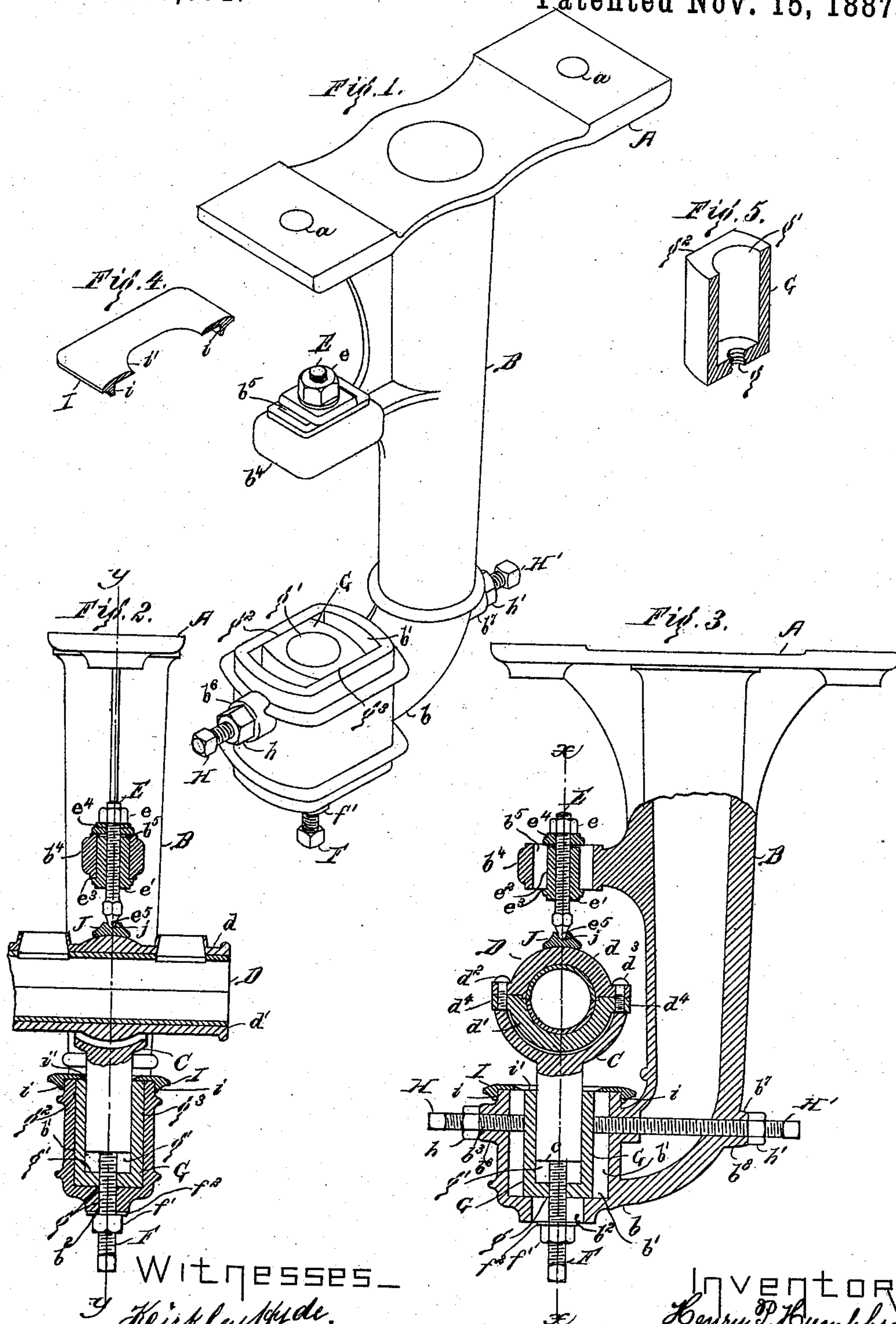


(No Model.)

H. P. HUMPHREY.
HANGER FOR SHAFTING.

No. 373,071.

Patented Nov. 15, 1887.



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UNITED STATES PATENT OFFICE.

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HANGER FOR SHAFTING.

SPECIFICATION forming part of Letters Patent No. 373,071, dated November 15, 1887.

Application filed March 4, 1887. Serial No. 229,670. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. HUMPHREY, 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 Hangers for Shafting, of which the following is a specification.

My invention relates to hangers for shafting; and it consists in the means hereinafter described for adjusting the journal-box of such a hanger.

In the accompanying drawings, Figure 1 is an isometric view of a hanger provided with my improvement, the yoke and the journal-box being omitted; Fig. 2, a section of the hanger, yoke, and journal-box on the line $x x$ in Fig. 3; Fig. 3, a vertical section of the same on the line $y y$ in Fig. 2, the upper part of the stem of the hanger and the plate of the hanger being in elevation in Figs. 2 and 3; Fig. 4, a section of the cover of the recess which receives the yoke-holder from front to back; Fig. 5, a similar section of the yoke-holder.

The plate A, provided with screw-holes a , by means of which the hanger is secured by screws to the floor-beams of the floor above, and the stem B are of a common form. It is also customary to provide the lower end of the stem with a lateral arm, b , which supports the yoke C, the yoke supporting the journal-box D, the journal-box D being commonly formed in halves $d d'$, united by bolts $d^2 d^3$, and provided with trunnions d^4 , which rest upon the top of the yoke, the journal-box being held down upon the yoke by a vertical adjusting-screw, E, which turns in a horizontal arm, b^4 .

The parts above mentioned are well known and differ from those in common use only as hereinafter described.

It is common to adjust the yoke C vertically by means of a vertical screw which turns below said yoke in the arm b and thrusts against the lower end of the stem c of said yoke, said stem being commonly cylindrical and placed in a cylindrical vertical hole in said arm b .

In my invention I adjust the height of the

yoke by an adjusting-screw, F, substantially like that in common use, except that in my invention this screw, instead of engaging with a threaded hole in the hanger proper, engages a threaded hole, g , in a yoke-holder, G, which consists of a block, preferably of metal, provided with a vertical cylindrical hole, g' , extending from the top of the same nearly through the same, and having two sides, $g^2 g^3$, which bear against two inner surfaces of the recess b' , formed in the lower part of the hanger, in the top of the arm b . In the other direction—that is, in a direction at right angles to the axis of a shaft supported by the hanger—the recess is longer than the yoke-holder, to allow the holder to be adjusted. From the bottom of the recess b' the arm b is slotted through at b^2 , to allow the screw F to be moved in the direction of the length of the recess when the yoke-holder is moved, as above described.

A check-nut, f' , and a washer, f^2 , above said nut surround the screw F below the hanger, and the nut f' , being turned up, presses said washer against the bottom of the hanger and holds the yoke-holder down, and also prevents the screw F from being turned by the jar of the shafting and connected machinery. The yoke-holder G, however, is properly adjusted in the recess b' before the nut f' is turned up by means of the horizontal screws H H', which turn in threaded holes $b^3 b^4$ and thrust against the front and back, respectively, of said yoke-holder, said screws H H' being held from turning out of contact with said yoke-holder by means of check-nuts $h h'$, turning on said screws, respectively, against bosses $b^5 b^6$, cast on said hanger.

Above the yoke-holder, on the top of the recess b' , is a cover, I, provided with a shoulder, i , which fits over the upper end of the recess and retains said cover in place. The cover I is also provided with a slot, i' , of a size and shape adapted to allow of the motion of the stem c of the yoke C when the yoke-holder is adjusted backward or forward, as above described. The cover I prevents dirt getting into the recess b' and interfering with the adjustment of the yoke-holder therein.

The yoke C and journal-box D are of the usual construction, the latter being supported in the former in the usual manner, and being held from rising out of said yoke by the vertical screw E; but the screw E, instead of turning in a threaded hole in the arm b^4 in the usual manner, turns in two nuts, $e e'$, the lower, e' , of which has a flat-sided body, e^2 , free to move without turning in a slot, b^5 , formed in said arm b^4 parallel with and immediately above the slot b^2 , said slot b^5 being of a length to allow the screw E to have an equal adjustment with the screw F and in the same direction. The body e^2 of the nut e' reaches nearly (but not quite) up through the slot b^5 , and a flange, e^3 , formed on the lower end of said nut e' , rests against the bottom of the arm b^4 on both sides of said slot. The upper end of the screw reaches through the slot b^5 , and is surrounded by a washer, e^4 , and above said washer by said nut e , the two nuts e' , when turned against the arm b^4 , acting as check-nuts to prevent said nuts and the screw E from turning on each other. Before the nuts $e e'$ are tightened the axis of the screw E is brought into line with the axis of the screw F, and the lower tapering end, e^5 , of said screw is placed in the depression j in the top of the plate J, which rests upon the top of the box D, the construction of the yoke, box, and plate D, as shown, being commonly used to allow the box to rock slightly on its trunnions d^4 .

The construction above described allows of an adjustment in every direction. In many cases the horizontal adjusting-screws H H' may be omitted, provided the yoke-holder G and the screw F are made of sufficient size and strength; but the screws H H' will be found to be of great convenience in adjusting the position of the yoke-holder.

I claim as my invention—

1. In a shaft-hanger, the combination of the frame provided with a vertical slot through the bottom of the same, a yoke-holder adapted to slide above said slot, and provided with a vertical hole in the top of the same and with another hole screw-threaded and leading from the bottom of said first-named hole through the bottom of said yoke-holder, a yoke provided with a stem adapted to enter said first-named hole, said yoke being adapted to support a journal-box, and a screw arranged in said vertical slot and entering and engaging said threaded hole, and a nut on said screw below said hanger adapted to be turned up against said hanger and to retain said yoke-holder in position, as and for the purpose specified.

2. In a shaft-hanger, the combination of the frame provided with a vertical recess and with a vertical slot leading from the bottom of said recess to the bottom of said hanger, a yoke-holder adapted to slide above said slot within said recess without turning therein, and provided with a vertical hole in the

top of the same and with another hole screw-threaded and leading from the bottom of said first-named hole through the bottom of said holder, a yoke provided with a stem adapted to enter said first-named hole, said yoke being adapted to support a journal-box, a screw arranged in said vertical slot and entering and engaging said threaded hole and thrusting against the lower end of said stem to adjust said yoke vertically, and a nut engaging said screw below said slot in said hanger and adapted to be turned up against said hanger to retain said yoke-holder and yoke in position, as and for the purpose specified.

3. In a shaft-hanger, the combination of the frame provided with a vertical recess and with a vertical slot leading from the bottom of said recess to the bottom of said hanger, a yoke-holder adapted to slide without turning in said recess, and provided with a vertical hole in the top thereof and with another hole screw-threaded and leading from the bottom of said first-named hole through the bottom of said holder, a yoke adapted to support a journal-box and provided with a stem adapted to fit the hole in the top of said holder, a screw arranged in said vertical slot and entering and engaging said threaded hole and thrusting against the lower end of said stem to adjust said yoke vertically, and a nut engaging said screw below said slot in said hanger and adapted to be turned up against said hanger to retain said yoke-holder and yoke in position, and horizontal screws turning in threaded holes in said frame and thrusting against the back and front of said holder to adjust the position of said holder in said recess when said nut is loosened, as and for the purpose specified.

4. In a shaft-hanger, the combination of the frame provided with lateral arms arranged one above the other, the lower one of said arms being provided with a vertical slot extending through the same, a yoke-holder adapted to slide above said slot and provided with a vertical hole in the top of the same and with another hole screw-threaded and leading from the bottom of said first-named hole vertically through the bottom of said holder, a yoke adapted to hold a journal-box and provided with a stem adapted to enter the hole in the top of said holder, a screw arranged in said vertical slot and entering and engaging said threaded hole, and a nut on said screw below said lower arm adapted to be turned up against said lower arm to retain said yoke-holder in position thereon, said upper arm being provided with a slot directly above and parallel with the slot in said lower arm and extending through said upper arm, a screw arranged in the slot in said upper arm and extending above and below the same, a flanged nut surrounding said screw and engaging the same, the flange of

said nut being wider than the slot in said upper arm, and another nut surrounding said screw above said arm to hold said last-named screw in position and to allow its axis to be
5 brought into line with the axis of said first-named screw and to hold a journal-box in said yoke, as and for the purpose specified.

In witness whereof I have signed the foregoing specification in the presence of two subscribing witnesses.

HENRY P. HUMPHREY.

Witnesses:

ALBERT M. MOORE,
GERTRUDE M. DAY.