

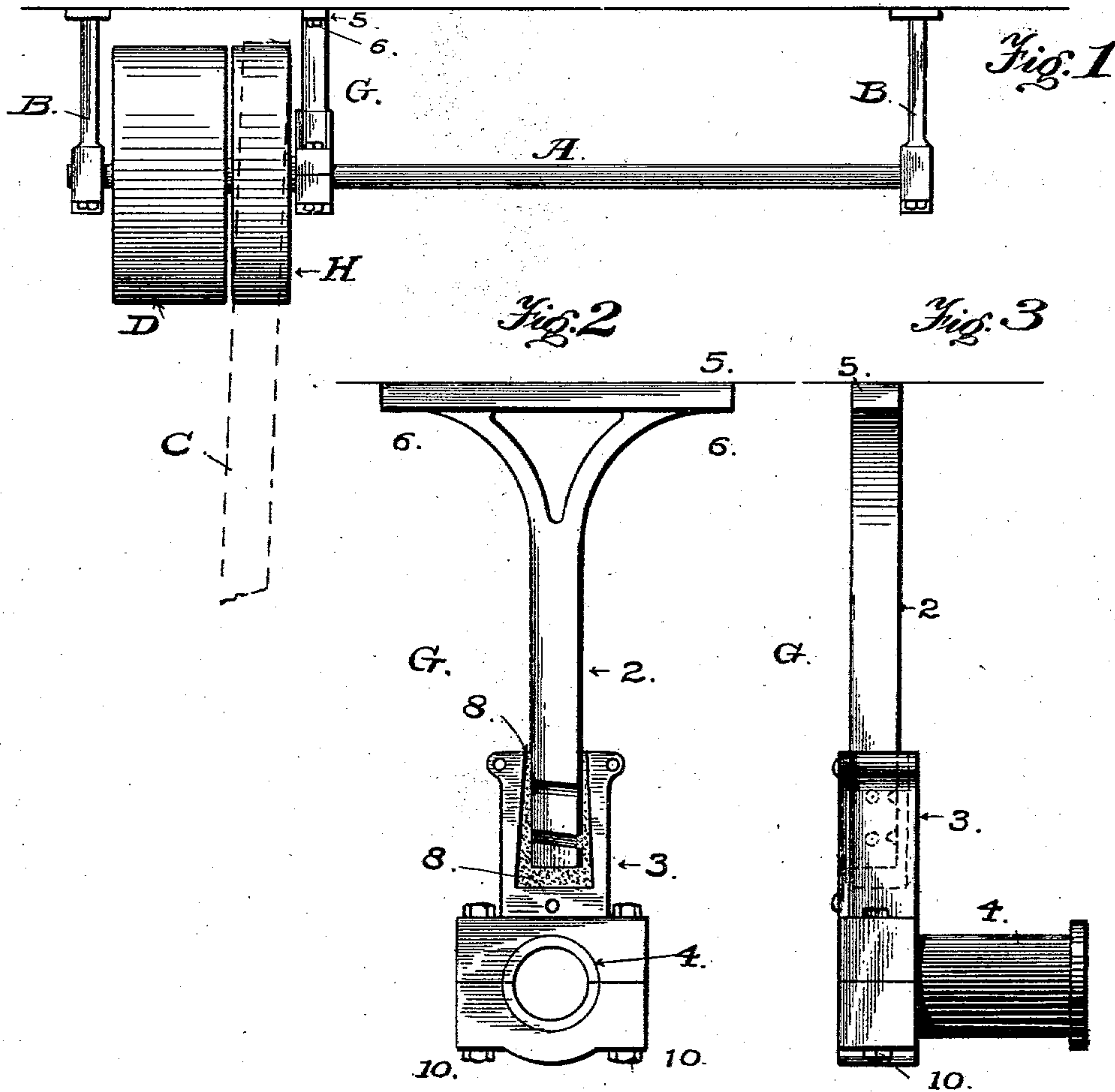
No. 704,723.

Patented July 15, 1902.

J. WEICHHART.  
BELT CARRIER.

(Application filed Apr. 4, 1901.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

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## BELT-CARRIER.

SPECIFICATION forming part of Letters Patent No. 704,723, dated July 15, 1902.

Application filed April 4, 1901. Serial No. 54,241. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WEICHHART, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in Belt-Carriers for Driving-Pulleys of Power-Shafts, of which the following is a specification.

The present invention has for its object mainly to effectually obviate and decrease the objections and difficulties incident to the transmission of power by belts and pulleys, especially in those situations and applications where the power is required at irregular intervals, as in a shop or factory where certain machines or appliances are not in daily or frequent use, while the power-shaft is always running during working hours.

To such end and object the invention consists, essentially, in mounting or hanging a loose pulley or belt-carrier alongside the main or driving pulley on the power-shaft to take the belt from that pulley when and as often as it is stripped from the fast to the loose pulley at the machine or tool being driven from the power-shaft and in providing means of novel character for setting, adjusting, and supporting such belt-carrier in operative position with relation to the driving-pulley.

The nature of the said invention and the manner in which I proceed to construct, apply, and carry out the same are explained at length in the following description, reference being had to the accompanying drawings, forming part thereof.

Figure 1 of the drawings is a front elevation of a section or portion of an overhead power-shaft and a driving-pulley fast thereon, together with my improved belt-carrier and its adjustable hanger supporting the carrier in working relation to the pulley, the fast and loose pulleys of the machine or tool to be driven being shown at a distance beneath the shaft and its pulley. Fig. 2 is a side elevation, on an enlarged scale, of the adjustable hanger with the front plate of the same removed. Fig. 3 is a front elevation on an enlarged scale.

A represents an ordinary overhead power-shaft, carried by hangers B B, and D a driving-pulley fast thereon, from which power is transmitted by a belt C (indicated by dotted

lines) to fast and loose pulleys E F on a shaft I, which may be the principal shaft of a machine or a tool to be driven.

G is a hanger composed of a shank 2 and a detachable box 3, having a sleeve or relatively long hub 4 extending from one side, and H is a belt-carrier loosely mounted on and supported by the sleeve. The shank 2 is provided with a top flange 5, having holes for screws 6 by which to fasten it to a fixed support, such as the ceiling of the shop. On the foot or lower end of this member 2 is fixed the box or detachable member 3 by setting the lower end in a cavity 8 in the top of the box and pouring around Babbitt metal or other similar material or compound in a molten state and allowing it to set and become solid. The cavity 8 being open at the top and being somewhat larger in its internal dimensions than the lower end of the member 2 a loose fit and sufficient space are afforded for vertical and lateral adjustment of the two parts or members for setting and adjusting the hanger to the shaft. The lower member 3 is formed in two parts divided horizontally and longitudinally through the middle of the sleeve, and the two parts are fastened together by bolts and nuts 10, so as to allow the sleeve to be separated and placed on the shaft without disturbing the adjustment of the shaft in its hangers, the purpose of this construction being to allow the hanger to be set alongside of a driving-pulley at any point in the length of a shaft without removing the shaft from its bearings, and, furthermore, to facilitate and reduce the work of setting the sleeve, so as to clear the shaft and set true and parallel with it. After the hanger is thus adjusted and fixed in position the belt-carrier H is placed on its support, which is the sleeve, as before described, and in the construction of this carrier provision is also made for placing it over the shaft and seating it on the sleeve while those parts are in position.

In cases where a driving-belt is to be frequently shifted from the fast to the loose pulley of a machine or tool during work done by the machine the pulley of the shaft from which motive power is taken should have a wide rim, so as to carry the belt while it is running on either pulley at the machine, as I have illustrated in Fig. 1 of the drawings.



In the operation of setting the hangers in position the member 2 is first fastened to the overhead timbers or supports one over the shaft as nearly as possible in vertical or up-  
 5 right position, after which the sections of the other member carrying the box or socket are separated and brought around the shaft and then bolted together. The foot of the mem-  
 10 ber 2 then being inserted in the socket on the top of the lower member that part is brought into position to set the sleeve clear of the shaft and as nearly as possible concentric with the shaft, so as to make the axis of ro-  
 15 tation of the carrier H coincident with that of the driving-pulley. Finally, the two parts of the hanger are secured together by running Babbitt metal into the box around the foot of the upper member and holding the parts in position until the metal hardens.  
 20 Grooves or recesses made in the foot of the upper member will securely unite the parts. The hub of the carrier H is fitted on the sleeve to turn smoothly; but it is not neces-  
 25 sary to finish the parts with a view to overcome friction nor to provide for lubricating the surfaces that work in contact, because the function of the carrier is to support the belt during the time it is unshipped from the power-pulley, and consequently is at rest, as  
 30 well as to hold the belt in position alongside of the power-pulley, to which it can easily be shifted when the power is required.

Having thus fully described my invention,

what I claim as new therein, and desire to se-  
 cure by Letters Patent, is—

1. A belt-carrier for a driving-pulley com-  
 prising a hanger composed of a fixed member  
 having a top flange, a separable member hav-  
 ing a box with an open top end to receive the  
 end of the fixed member, in which said mem- 40  
 ber is secured after adjustment by pouring  
 molten metal into the box around the end of  
 the fixed member, a two-part sleeve on the  
 separable member divided longitudinally,  
 means for securing the movable part of the 45  
 sleeve to the box, and a belt-carrying pulley  
 loosely mounted on the sleeve.

2. In a pulley-hanger the combination, of  
 a fixed member having a top flange and pro-  
 vided with recesses in the surface at the lower 50  
 end, a separable member having an open-end  
 box, the opening in which is adapted to per-  
 mit lateral as well as vertical adjustment of  
 the end of the fixed member before it is se-  
 cured thereon, said parts being united after 55  
 adjustment by pouring molten metal into the  
 space around the lower end of the fixed mem-  
 ber and allowing it to set.

In testimony whereof I have signed my  
 name to this specification in the presence of 60  
 two subscribing witnesses.

JOHN WEICHHART.

Witnesses:

EDWARD E. OSBORN,  
 M. REGNER.