No. 703,924. Patented July 1, 1902.

O. D. HOLT.

LINK MOTION BLOCK.

(Application filed Feb. 21, 1902.)

(No Model.)

Fig. 1.

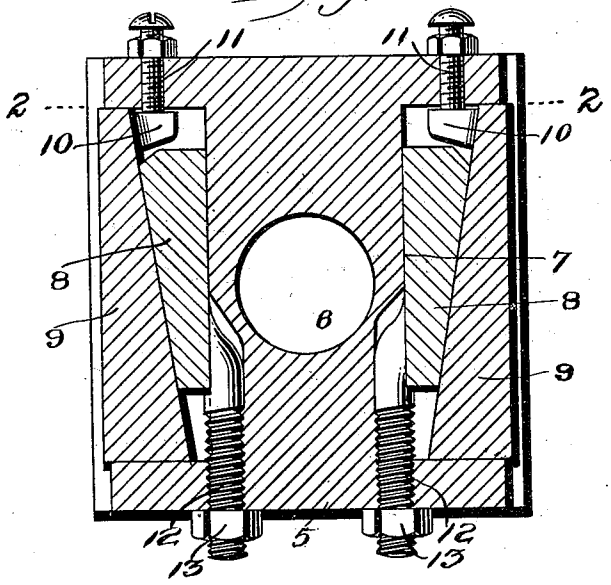


Fig. 2.

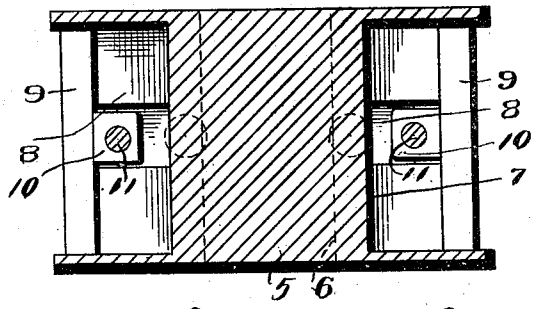
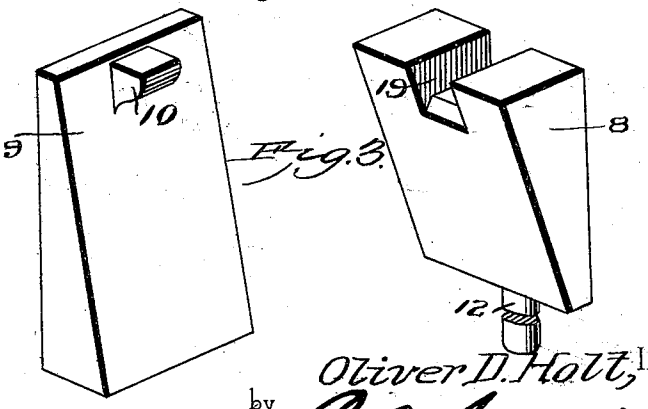


Fig. 3.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OLIVER D. HOLT, OF BRAMAN, OKLAHOMA TERRITORY.

LINK-MOTION BLOCK.

SPECIFICATION forming part of Letters Patent No. 703,924, dated July 1, 1902.

Application filed February 21, 1902. Serial No. 95,106. (No model.)

To all whom it may concern:

Be it known that I, OLIVER D. HOLT, a citizen of the United States, residing at Braman, in the county of Kay and Territory of Oklahoma, have invented a new and useful Link-Motion Block, of which the following is a specification.

My invention relates to certain improvements in the construction of link-blocks and devices of similar character in the form of guided blocks or engine cross-heads which are subjected to sliding friction.

The principal object of the invention is to construct a block which may be adjusted to compensate for wear either on the block or on the guides in which it is held.

With this and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claim hereto appended.

In the drawings, Figure 1 is a sectional elevation of a link-block constructed in accordance with my invention. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the adjustable portions of the block detached.

Similar numerals of reference are employed to designate corresponding parts throughout the various figures of the drawings.

5 designates a block of a size and shape suitable for engagement with a link and provided with a central opening 6 for the reception of the pin or bolt by which it is connected to the lower rocker-arm of the valve-gear. As a rule these blocks are formed of a single piece of metal machined to the proper shape and with no provision for adjustment in case of wear. In locomotive-work, where the link is shifted frequently in the stopping or starting of an engine or in changing the speed, there is considerable wear on both the link and the block, and considerable work and expense are involved in substituting a new block for one worn away and loose from constant work.

In carrying out my invention I form in each side of the block a rectangular recess 7, in which are placed a longitudinally-movable wedge-block 8 and a laterally-movable wearing-block 9, the latter being of such size as to fit snugly in the outer portion of the recess and forming the wearing-surface in contact with the blades of the link. At the upper end of the block 9 is an inwardly-projecting integral lug 10, with which engages a set-screw 11, passing through a threaded opening in the upper portion of the block proper and serving to secure the wearing-block in any position to which it may be adjusted by a longitudinal movement of the wedge-block 8. The wedge-block 8 is secured at its lower end to a threaded stem 12, which extends out through an opening formed in the block 5 and is adapted for the reception of an adjusting-nut 13, which may be turned to effect a downward movement of the wedge-block and an outward movement of the wearing-block. The wedge-block may, if necessary, terminate below the lug 10 of the wearing-block; but it is preferred to extend the contact-surfaces between the block, this being accomplished by providing a recess 19 in the upper portion of the wedge-block for the passage of the lug 10. The inner wall of the recess 7 and the outer line or contact-face of the wearing-block are parallel with each other, so that any longitudinal movement of the wedge-block will result in a movement of the wearing-block to precisely the same extent at all points. In adjusting the device to compensate for wear, the set-screw 11 is loosened and the nut 13 is turned, causing a longitudinal movement of the wedge-block and an outward movement of the wearing-block. When the wearing-block is moved to the desired position, the set-screw 11 is tightened up and securely locks it in place. By providing the adjusting devices on each side of the block the connecting-pin between the block and the rocker-arm of the valve-gear may be maintained in any position desired, or it may be adjusted to one side or the other to effect a similar movement of the valve.

While the construction herein described, and illustrated in the accompanying drawings, is the preferred form of the device, it is obvious that the same construction may be employed in connection with cross-heads and in

other sliding blocks having fixed guides without departing from the spirit or sacrificing any of the advantages of my invention.

Having thus described my invention, what I claim is—

The combination of the link-block having a central pivot-opening and provided at its opposite sides with recesses 7, laterally-movable wearing-blocks 9 having flat bearing-faces projecting slightly beyond the mouth of the recesses, said bearing-blocks being of a length and width approximately equal to the length and width of the recesses and each being provided at its narrower end with an inwardly-projecting lug 10, set-screws 11 carried by the link-block and adapted to engage with said lugs, wedge-blocks 8 situated between the inclined faces of the wearing-blocks and the inner walls of the recesses, said wedge-blocks each being provided with a recess 19 for the reception of the lugs 10, threaded stems 12 forming part of wedge-blocks and extending out through guiding-openings in the lower portion of the link-block, and nuts adapted to said threaded stems for adjusting the position of the wedge-blocks.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

OLIVER D. HOLT.

Witnesses:
W. A. STOUGH,
W. E. HOLMES.