L. RANSOM.

STRAP JOINTS AND OILERS.

No. 185,130. Patented Dec. 5, 1876.

Fig. 1.

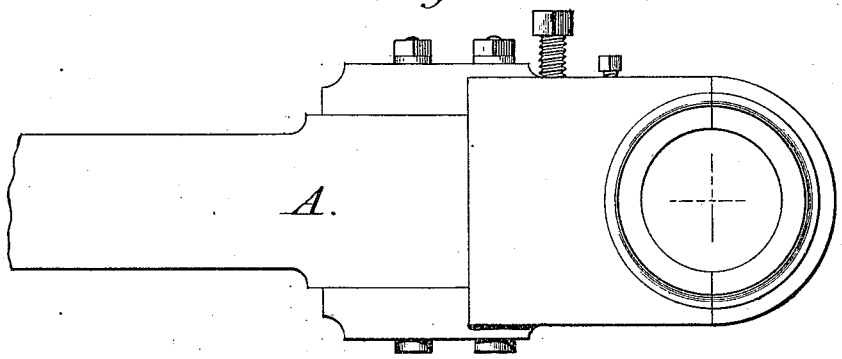


Fig. 2.

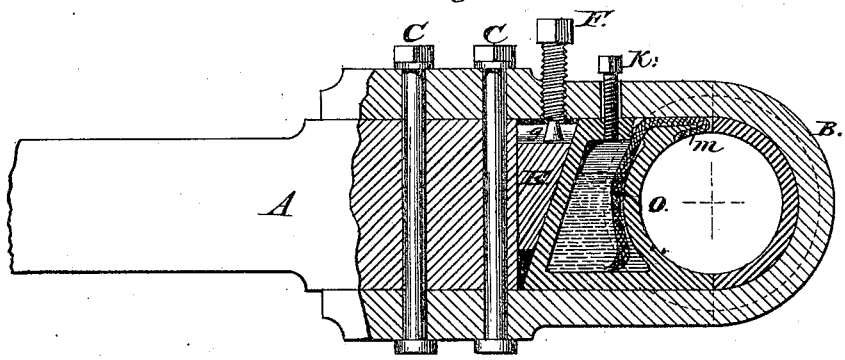


Fig. 3.

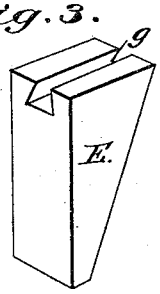


Fig. 4.

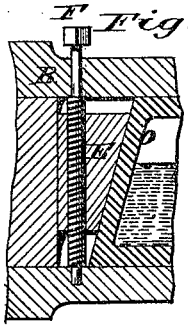
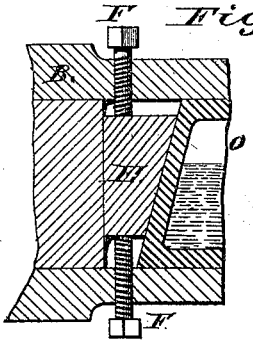


Fig. 5.



Attest:
H. C. Perine.
H. D. Hutton

Louis Ransom,
Inventor.

By M. Cooper
Atty.

UNITED STATES PATENT OFFICE.

LOUIS RANSOM, OF STRATFORD, NEW YORK.

IMPROVEMENT IN STRAP-JOINTS AND OILERS.

Specification forming part of Letters Patent No. **185,130**, dated December 5, 1876; application filed November 1, 1876.

To all whom it may concern:

Be it known that I, LOUIS RANSOM, of Stratford, county of Fulton and State of New York, have invented certain new and useful Improvements in Strap-Joints and Oilers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Fig. 1 is a side elevation, and Fig. 2 a sectional view, of my improved device as assembled for use. Fig. 3 is a perpective view of the adjusting-wedge shown in Fig. 2; and Figs. 3 and 4 illustrate certain modifications of the means employed for controlling the adjusting-wedge.

Like letters in all the figures refer to corresponding parts.

My invention relates to that class of strap-joints in which the usual gib and key are dispensed with, the boxes being adjusted by means of a vertically-moving wedge; its object being, first, to simplify and improve the arrangement of said wedge with reference to the stub end of the connecting-rod and the hollow movable box; and, second, to provide a simple, cheap, and effective oiler to be used in connection with the strap-joint—to accomplish all of which the invention consists in certain peculiarities of construction and arrangements of parts to be hereinafter more fully described, and then pointed out in the claims.

A is the stub end of the connecting-rod, to which the strap B is secured by means of the removable bolts C C. E is the adjusting-wedge, by means of which the rear box is advanced as it is worn away.

In Figs. 1 and 3, the wedge E is provided at top with a dovetail groove, *g*, intended to receive a correspondingly conical-shaped projection upon the set-screw F. This projection is cut smaller than the screw F, so that it may easily pass through the threads in the strap; and it is obvious that, when combined as shown in Fig. 2, it will cause the wedge to follow the motions of the screw in a vertical direction.

The same object may be accomplished by cutting a female screw in the wedge E to receive the screw F, as shown at Fig. 4. Under this construction, the screw F is passed through the strap B in any convenient manner—as, for instance, by employing a bushing in the upper part thereof.

Fig. 5 illustrates still another modification, wherein two screws, F F, are employed, one above and one below the wedge. By loosening one and tightening the other, the wedge may be adjusted as desired. Suitable jam-nuts or other locking devices may be applied to the screws F, to prevent them from accidentally unscrewing.

From the arrangements shown in Figs. 2, 4 and 5, it will be observed that the vertical face of the wedge E is placed adjacent to the stub end of the connecting-rod, and that the rear face of the rear box is inclined to correspond with the inclined face of said wedge. This arrangement causes the wedge to move only in a vertical direction, and the box alone to advance bodily toward the shaft. Further than this, it permits me to retain the square cut of the stub-end, by reason of which the improved joint may be readily applied to old connecting-rods.

The rear box O is hollowed out to form an oil-cistern. The inlet at top should be controlled by a screw, as at K, which passes through an opening in the strap B made sufficiently large to permit said screw to advance and recede with said box. A wick, *w*, supplies oil to the shaft. This wick passes out at the top of the oil-chamber, through a channel cut in the top of the box, (the strap forming a cover to said channel,) and is then bent backward, and laid in a groove cut for its reception in the wearing-surface of the box, from which position it supplies oil to the wrist or journal to be lubricated. This wick requires no spring to hold it in place; its channel being burred or roughened in any suitable way calculated to prevent slipping of the wick.

The strap-joint and oiler as thus constructed is very simple and compact, and is well adapted for use in any location. It is particularly advantageous in situations where the engine is incased, as in an improved steam street-car, for which I am about to make application by Letters Patent. In such instances it is desirable to dispense with the old gib and key, and to reduce the path of the joint

to a minimum, in order that the casing may be as shallow as possible.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the adjusting-wedge E, of the hollow movable box O, having its rear face inclined, and the stub-end A, having a vertical face, the whole being arranged and adapted to operate as shown and described.

2. The hollow box O, adapted to receive oil, and provided with wick-channels in its top and wearing-face, cut and arranged as shown and described.

3. In combination with the movable box O, and the strap B, the screw K, adapted to close the filling-orifice to said box, and operating through an enlarged opening in said strap, as and for the purposes explained.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

LOUIS RANSOM.

Witnesses:
GEO. A. WATERS,
GEO. CUSHING, Jr.