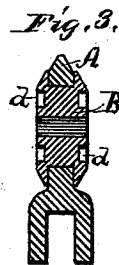
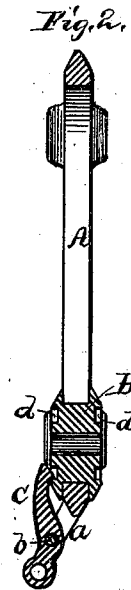
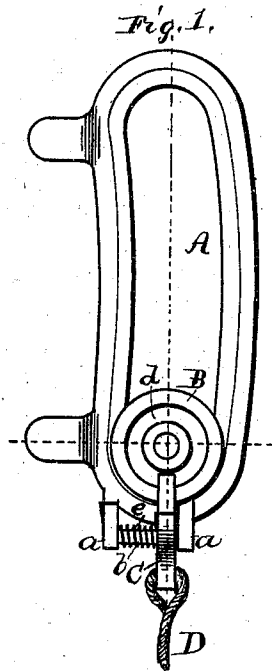


G. PALM.

LINKS FOR STEAM-ENGINES.

No. 174,431.

Patented March 7, 1876.



WITNESSES;

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UNITED STATES PATENT OFFICE.

GEORGE PALM, OF KARNS CITY, PENNSYLVANIA.

IMPROVEMENT IN LINKS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **174,431**, dated March 7, 1876; application filed October 7, 1875.

To all whom it may concern :

Be it known that I, GEORGE PALM, of Karns City, county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Link-Motion for Steam-Engines; of which the following is a specification :

The nature of my invention consists in the construction and arrangement of an engine-link, with friction-roller and locking-devices, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side view of my engine-link. Fig. 2 is an end view of the same. Fig. 3 is a section through the link and roller.

A represents the link, constructed substantially in the same manner as is now generally the case.

In this link is placed a flanged friction-roller, B, which works on the wrist-pin or crank, whereby the same will work more free, and with considerably less friction.

At the upper end of the link A are two projecting ears, *a a*, in which a short rod or shaft, *b*, has its bearings. On this rod is secured a hooked latch, C, which is designed to hold the link down, instead of a set-screw or lever,

which is generally used on stationary and other engines. The lower hooked end of the latch is to catch on an annular flange or recess, *d*, formed on the side of the roller B, and the other end has a rope or cord, D, attached to it. This rope D is to pass up over a pulley and run off to any desirable distance, so that by the pulling of the cord the latch is unlocked and the link raised. Then, by letting go of the rope or cord, the link drops back and locks itself, the latch being held to its work by a spring, E, as shown.

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

1. In an engine-link, A, the flanged friction-roller B arranged therein, substantially as and for the purposes herein set forth.

2. The combination of an engine-link, A, a friction-roller, B, therein, and a self-locking latch, C, for the purposes herein set forth.

3. The combination of the link A, roller B, latch C, cord D, and spring *e*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 30th day of September, 1875.

GEO. PALM.

Witnesses :

I. H. LUTHER,
J. BELLOWES.