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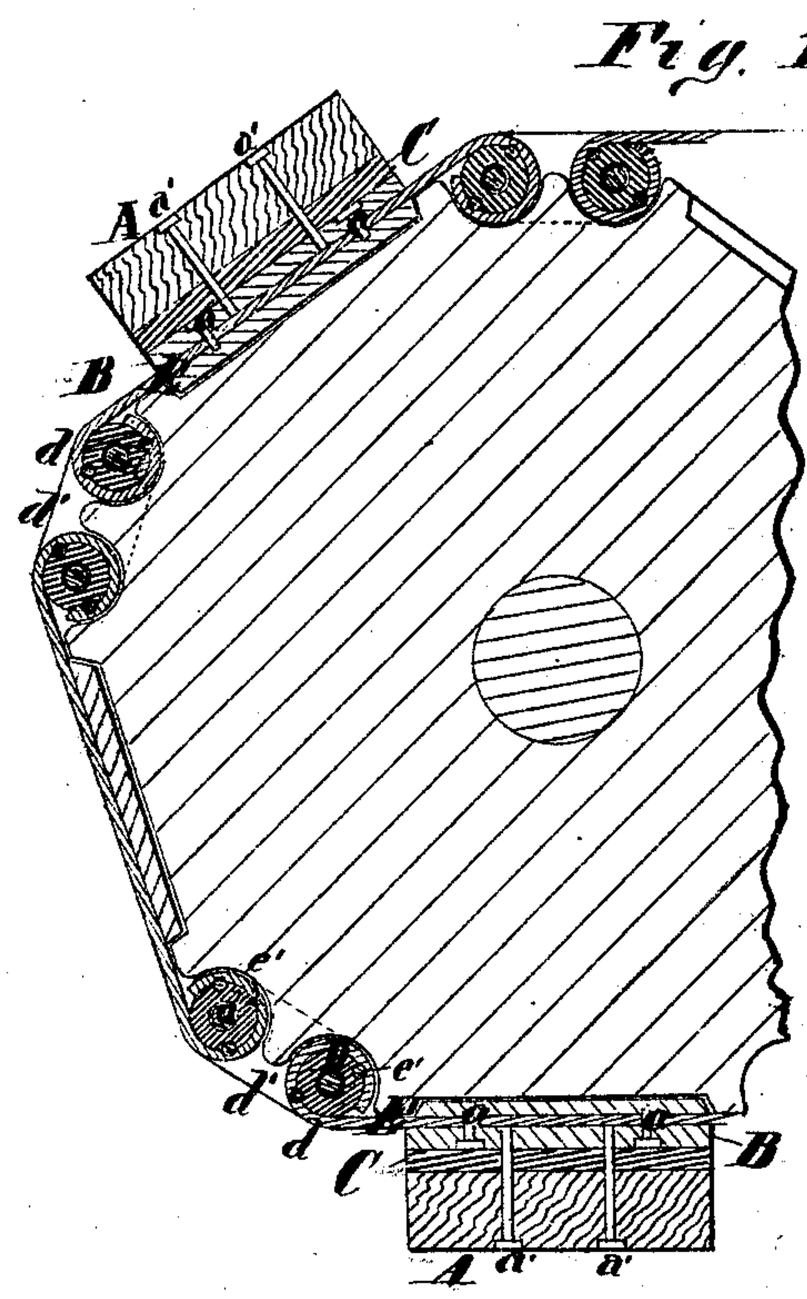
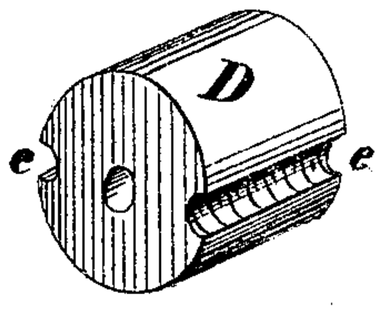
R. C. PARVIN.

Improvement in Traction Engine.

No. 122,848. Patented Jan. 16, 1872.

Fig. 1





Witnesses
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122,848

UNITED STATES PATENT OFFICE

ROBERT CROUCH PARVIN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TRACTION-ENGINES.

Specification forming part of Letters Patent No. 122,848, dated January 16, 1872.

To all whom it may concern:

Be it known that I, ROBERT CROUCH PARVIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Traction-Engines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 is a sectional view of my improvements. Fig. 2 is a perspective view of improved bush hereinafter described.

My invention has reference to traction-engines, and particularly to an engine constructed according to the method exhibited in my application for a patent filed August 12, 1871. It has for its object a modification of the structure of the shoe in the application referred to, whereby the engine can be easily and expeditiously shod by a common hand; also a means whereby less noise will be created than by an engine constructed according to my former method; lastly, it is designed to lessen the wear of links in the endless chain, as hereinafter described. My invention consists, accordingly, in the provision of a metal plate or secondary shoe placed between the wooden shoe and the endless chain. The plate will be secured, by a few bolts, to the wooden shoe, and by loosening these bolts the machine may be newly shod, the work being done more easily and readily than when the endless chain and attachments are connected directly with the wooden shoe. In this case a large number of bolts have to be removed, while, according to my present method, the chain remains secured to the metal plate, and this latter alone is disconnected from the wooden shoe. My invention consists, secondly in the intervention of a rubber pad or cushion placed between the plate and shoe for the purpose of reducing the noise incident to the working of the engine. This cushion also imparts a considerable degree of elasticity to the shoe. My invention consists, thirdly, in the construction and novel arrangement of a bush placed within the eye of the long link, and traversed by the journal of the small link, the object being to prevent the latter from wearing the eyes of large links.

In the drawing, A represents the shoe, consisting of a stout wooden plank. B shows the secondary shoe or plate to which the endless chain and attachments are rigidly, though removably, secured by bolts *a a*. C represents the rubber cushion intervening between the shoes A B, and held firmly in place by the bolts *a' a'* uniting them. D represents my improved bush, which, in Fig. 1, is shown in its proper position within the eye of the long link E.

It will be observed that each long link consists of a single plate, with an eye, *d*, formed at each end for the pin of the short link to turn in.

Each short link consists of two parallel plates d^1 d^1, united by transverse pins d^2, rigidly secured to them. The bushes D are designed to prevent the pins d^2 from wearing the eye *d*, and are, therefore, made to serve as boxes for said pins. The bush is of a circular form, bored through its axial center, and notched or recessed at *e e*, on opposite sides. The pin d^2 passes through it and works loosely. When placed in the eye of the link the notches *e* coincide with others formed inside the eye, and are rigidly secured by means of screw-bolts or pins *e'* or their equivalent, inserted through the holes thus formed, as clearly shown in the drawing, Fig. 1.

In my improved traction-engine the endless chain is propelled or drawn always in the same direction; consequently the pins d^2 bear against one side of the bushes D more than against the other, thus causing the pin-seat to wear unevenly. When said seat has become worn to any considerable extent the bush may be turned completely around, transferring the wear to the other side, thus obviating the necessity of as frequently renewing the bushes.

I claim as my invention—

1. In traction engines, the sectional shoe, composed of the metal plate B, in combination with the wooden shoe A, as and for the purpose described.

2. In traction-engines, the rubber cushion C, arranged between the link E or plate B and the shoe A, as and for the purpose specified.

3. In an endless chain for traction-engines, I claim the bush D, secured within the eye *d* of the bent link E, in combination with the pin d^1 of the short link, as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROBERT CROUCH PARVIN.

Witnesses:

WENCEL HARTMAN,

W. DANL. CONNOLLY. (94)