

W. H. ROBARTS.
Adjustable Belt-Couplings.

No. 154,282.

Patented Aug. 18, 1874.

Fig. 1.

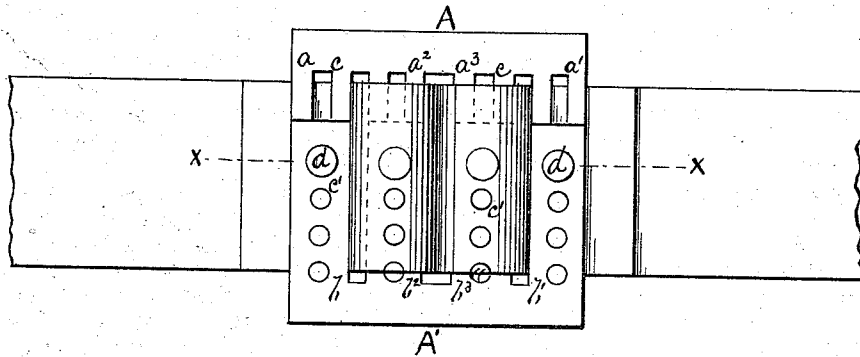
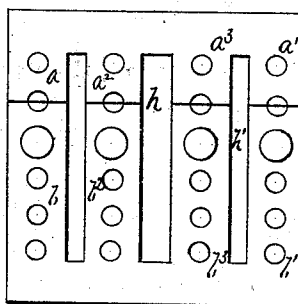


Fig. 2.



Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN ADJUSTABLE BELT-COUPPLINGS.

Specification forming part of Letters Patent No. 154,282, dated August 18, 1874; application filed July 9, 1874.

To all whom it may concern:

Be it known that I, WILLIAM H. ROBERTS, of Columbus, in the county of Muscogee and State of Georgia, have invented certain Improvements in Adjustable Belt-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a top-plan view of the coupling and belt. Fig. 2 is a longitudinal sectional view on the line $x x$, Fig. 1. Fig. 3 is a top-plan view of one style of coupling.

The object of my invention is the construction of a coupling that can readily be adjusted to belts of different widths, and at the same time allow the belt to be readily shortened or lengthened, should occasion require.

The nature of my invention consists in forming the coupling in two sections. Each section is provided with side bars and two center bars, one end of each section being closed and the other open. In the bars of one section are punched holes, while in the other section slots are cut in the bars; or the bars of both sections may be provided with holes. The bars of one section, when the coupling is being used, partly overlap the bars of the other section, and are fastened together by means of bolts and nuts, as hereinafter more fully described.

The construction and operation of my invention are as follows:

A A' are the two sections, which may be made of brass, iron, or any other suitable material. Each of these sections is provided with end bars $a a' b b'$, and center bars $a^2 a^3 b^2 b^3$. Both the end and center bars of the section A are provided with slots $c c$, which extend nearly the entire length of the bars, while the end and center bars of the section A' are provided with holes $c' c'$, punched at suitable distances along their entire length.

If preferred, the bars of both sections may be provided with holes, as shown in Fig. 3.

The sections A A', when brought together to couple the belt, are secured by means of the bolts $d d$ and nuts $d' d'$, said bolts passing through the holes $c' c'$ and slots $c c$.

Any other suitable fastening may be substituted for the bolts and nuts without in any manner interfering with my invention.

One of the advantages of my improved belt-

coupling is, that it is so constructed that no part of the coupling ever comes in contact with the pulley, and therefore neither the coupling nor pulley are liable to wear from this source. Another advantage is that belts or bands can be taken up or let out with great rapidity.

In case it is desired to take up the belt, you simply have to pull the end of the belt until the desired length is attained, and then roll up the end in a coil and tie it at the coupling. By this method none of the belt need be cut off, and when it is desired to lengthen the belt, the coil is unrolled and the belt pulled out, which saves the labor of splicing a piece on.

When it is desired to couple a belt of greater width, you have simply to unscrew the nut and pull the section containing the holes the desired width, and then screw the nut up again.

In case holes are punched in each section, the bolt is taken out, and when the coupling is adjusted the desired width, it is inserted in the holes that register, and the nut is screwed on again.

When the two sections of the coupling are brought together, as shown in Figs. 1 and 3, they form a device with three slots and four bars.

To attach the belt, you pass one end through the center slot h , over the bar $a^2 b^2$, down through the slot h' , and under the bar $a' b'$. The other end of the belt is fastened in the same manner on the opposite side of the coupling. As both ends of the belt pass through the slot h , it is made twice the width of the other slots.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The adjustable belt-coupling, composed of two sections, A A', said sections being provided with end and center bars, the bars of the section A having slots or holes, and the bars of the section A' having holes, the two sections being fastened by bolts and nuts, substantially as described.

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

WILLIAM H. ROBERTS.

Witnesses:

ALEX. C. MORTON,
JAMES T. GAMMON.