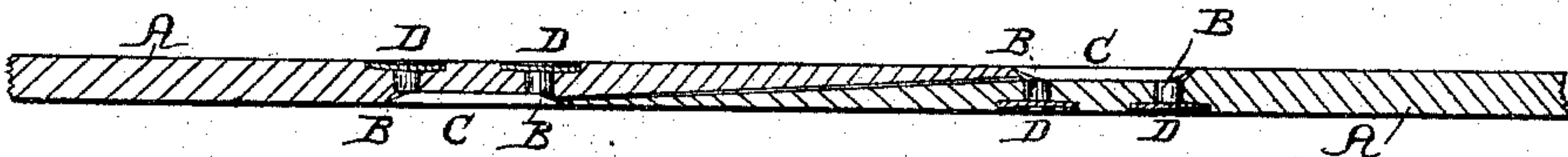


H. UNDERWOOD.
BELT COUPLING.

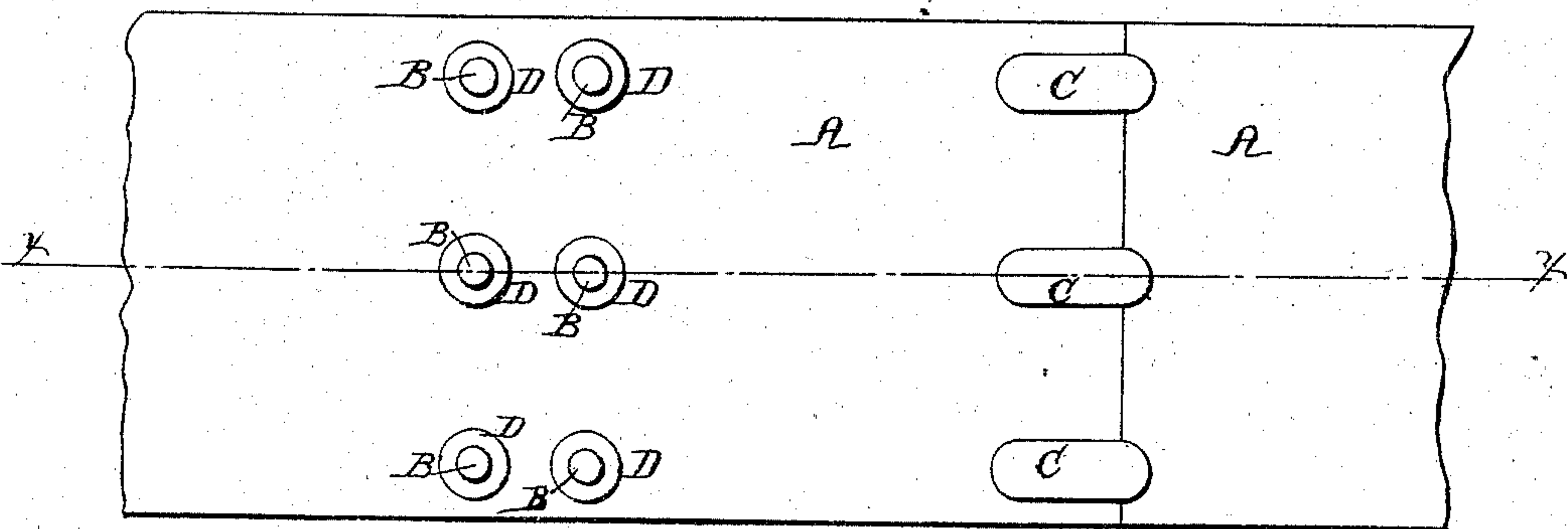
No. 36,814.

Patented Oct. 28, 1862.

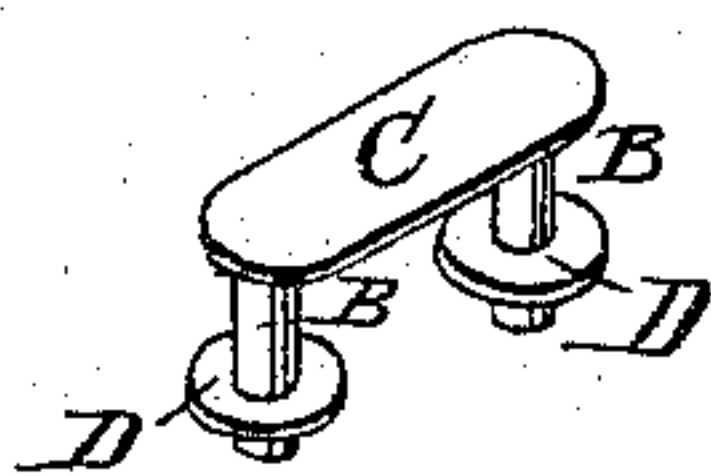
Fig; 1



Fig; 2.



Fig; 3.



Witnesses,
Timothy Shine
Alsawby

Inventor,
Henry Underwood

UNITED STATES PATENT OFFICE.

HENRY UNDERWOOD, OF NEW YORK, N. Y.

IMPROVED BELT-COUPLING.

Specification forming part of Letters Patent No. 36,814, dated October 23, 1862.

To all whom it may concern:

Be it known that I, HENRY UNDERWOOD, of the city, county, and State of New York, have invented a new and Improved Belt-Joint or Belt-Coupling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section of the lapped ends of a belt connected together by my invention. Fig. 2 is a face view of the same; Fig. 3, a detached view of a pair of rivets which constitute my invention.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful improvement in the rivet coupling or joint hitherto employed for connecting together the ends of machine-belting.

The invention consists in having the rivets connected together in pairs by a strap, the rivets and strap being swaged in proper form from a single piece of copper, whereby several advantages are obtained over the ordinary rivets, as hereinafter fully set forth.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it with reference to the drawings.

A A represent the lapped ends of a belt, the ends being chamfered or skived, and then connected and lapped in the usual way.

B represents the rivets, which are of the usual length, and connected in pairs by a strap, C, the width of which may be about equal to the diameter of the heads of ordinary rivets. The ends of the strap, however, do not project but a trifle beyond the ends of the rivets, as will be seen by referring to Fig. 1.

Each pair of rivets and their straps are swaged out of a single piece of copper. The straps may be of any suitable length. They need not exceed greatly the combined diameters of the two washers, D D, employed on the disengaged ends of the rivets.

The rivets are applied to the belting by punching the latter at such points that the rivets, when inserted in the holes, will admit of the straps extending or projecting slightly over the end of each lap, as shown in Figs. 1 and 2. By this means the extreme end of each lap of the belt is retained snugly in proper position, and prevented from being

curled up by its passage over the wheel or pulley on which it runs.

On the free or disengaged ends of the rivets, at the opposite side of the belt, there are fitted washers E, on which the ends of the rivets are headed. (See more particularly in Fig. 1.)

The straps C are far superior to the ordinary rivet-heads for keeping the ends of the laps snugly to the belt. Straps, however, have been previously used, and may be seen in a belt coupling or joint patented by me February 9, 1858. In this invention, however, the straps were made detached and perforated near their ends for the rivets to pass through. This involved considerable trouble and time in applying the rivets to the belt, and the straps could not be made as short as desirable, as the rivet-holes were necessarily made at some distance from the ends of the strap, in order to prevent the rivets tearing out from it.

The long straps are liable to be bent or curved in passing over pulleys or wheels, especially if the latter be not large in diameter, and the ends of the straps thereby become loose and curl up or outward from the belt, leaving the ends of the laps unprotected, and which are consequently also liable to curl up or outward from the belt, so as to seriously impair the strength of the coupling or joint.

By my improvement it will be seen that the straps C may be made as short as the distance required between the rivets of each pair, as the latter are formed in one piece with the strap; hence the difficulty attending the use of the detached straps is avoided, and a great advantage obtained in the facility with which my improvement may be applied to the belt.

I would remark that my invention is applicable for butted joints as well as for lap-joints.

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

The connecting of rivets B permanently in pairs by means of straps C, swaged with the rivets from or out of a single piece of copper, to form an improved belt coupling or joint.

HENRY UNDERWOOD.

Witnesses:

R. GAWLEY,
TIMOTHY SHINE.