G. KOEB & L. HOUCKE.

BELT FASTENING.

No. 88,307. Patented Mar. 30, 1869.

Fig. 1.

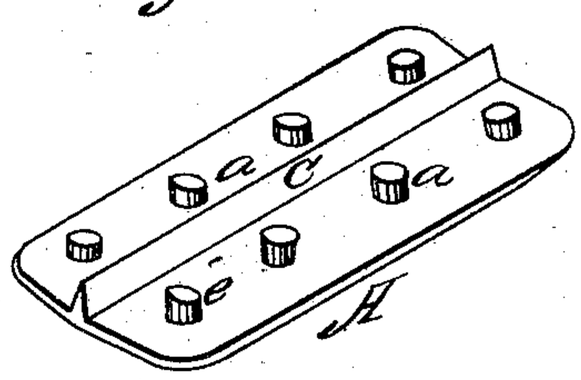
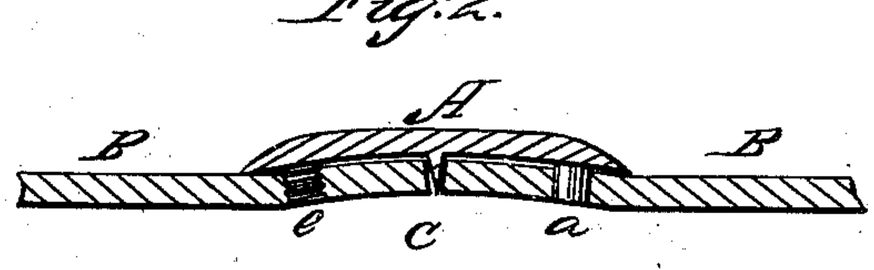


Fig. 2.



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GEBHARD KOEB AND LOUIS HOUCKE, OF SPRINGFIELD, OHIO.

Letters Patent No. 88,307, *dated March* 30, 1869.

IMPROVED BELT-FASTENING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, GEBHARD KOEB and LOUIS HOUCKE, of Springfield, in the county of Clark, and State of Ohio, have invented certain new and useful Improvements in Belt-Fasteners; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use our invention, we will proceed to describe it.

Our invention relates to devices used for fastening together the ends of belts used for transmitting power, or driving machinery; and

It consists in metallic plates, provided with a central rib, or division, and two or more rows or series of studs, as hereinafter explained.

Figure 1 is a perspective view of our device, and

Figure 2 is a longitudinal section of a portion of a belt with the device applied.

It was formerly customary to secure the adjoining ends of a belt by piercing them with a series of holes, and then lacing them together with a string passed repeatedly through the holes.

This plan was objectionable, for many reasons, and therefore many plans have been devised for the purpose of accomplishing the desired object.

After many experiments, we have found the following to be a most simple and efficient plan.

We construct a metallic plate, A, of a length equal to the width of the belt.

Along the centre of this plate A, we form a thin division-ridge, *c*, as represented in fig. 1.

On the same face of the plate, we form a row, or series of studs, *a*, near each edge of the plate, these rows being arranged parallel to the central ridge *c*.

These studs may be of any form desired, in cross-section, either round, square, or triangular, and they may be either plain, or have screw-threads cut thereon, as represented at *e*, figs. 1 and 2.

The manner of applying our plate is as follows:

The ends of the belt being cut straight across, the plate is laid upon any solid support, and one end of the belt is laid upon it, the end being laid even with, or abutting against the ridge *c*, the belt resting upon the ends of the studs *a*.

With a hammer or mallet, we then strike upon the belt, driving it down on the studs *a*, until the latter are forced into and through the belt, as represented in fig. 2.

The opposite end of the belt is then secured, in the same manner, to the plate A, on the opposite side of the central ridge *c*.

By this method of driving the studs into the belt, without first punching, or forming holes for them, they are held very securely, and there is not the least danger of the belt's wearing, or becoming loose thereon.

The central ridge *c* serves as a guide in securing the plate accurately to the belt; and when it is necessary to take up the belt, the edge of the plate serves as a guide by which to cut across the belt, thus insuring the replacing of the belt, when brought up against the central ridge, in precisely the same position, or angle that it formerly occupied.

In this way, no matter how often the belt may be taken up, or cut, it is always kept straight, and will therefore run true on the pulleys, without any tendency to run off, or from side to side.

The plate may be made of malleable iron, cast at one operation, or it may be made of brass, especially for small sizes, to be used on narrow belts.

The plate should always be slightly curved, to correspond with the form of the pulleys, as represented in fig. 2, and for very large belts, it may be well to provide more than one row of studs on each side, in which case they should be set zigzag.

These plates may be made of sizes corresponding with the various widths of belts in general use, and kept for sale by dealers, ready to be applied whenever required, the same as belts and similar articles are now kept by dealers.

Having thus described our invention,

What we claim, is—

A belt-fastener, consisting of the metallic plate A, provided with the central ridge *c* and the studs *a*, constructed for use, substantially as herein described.

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Witnesses:

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