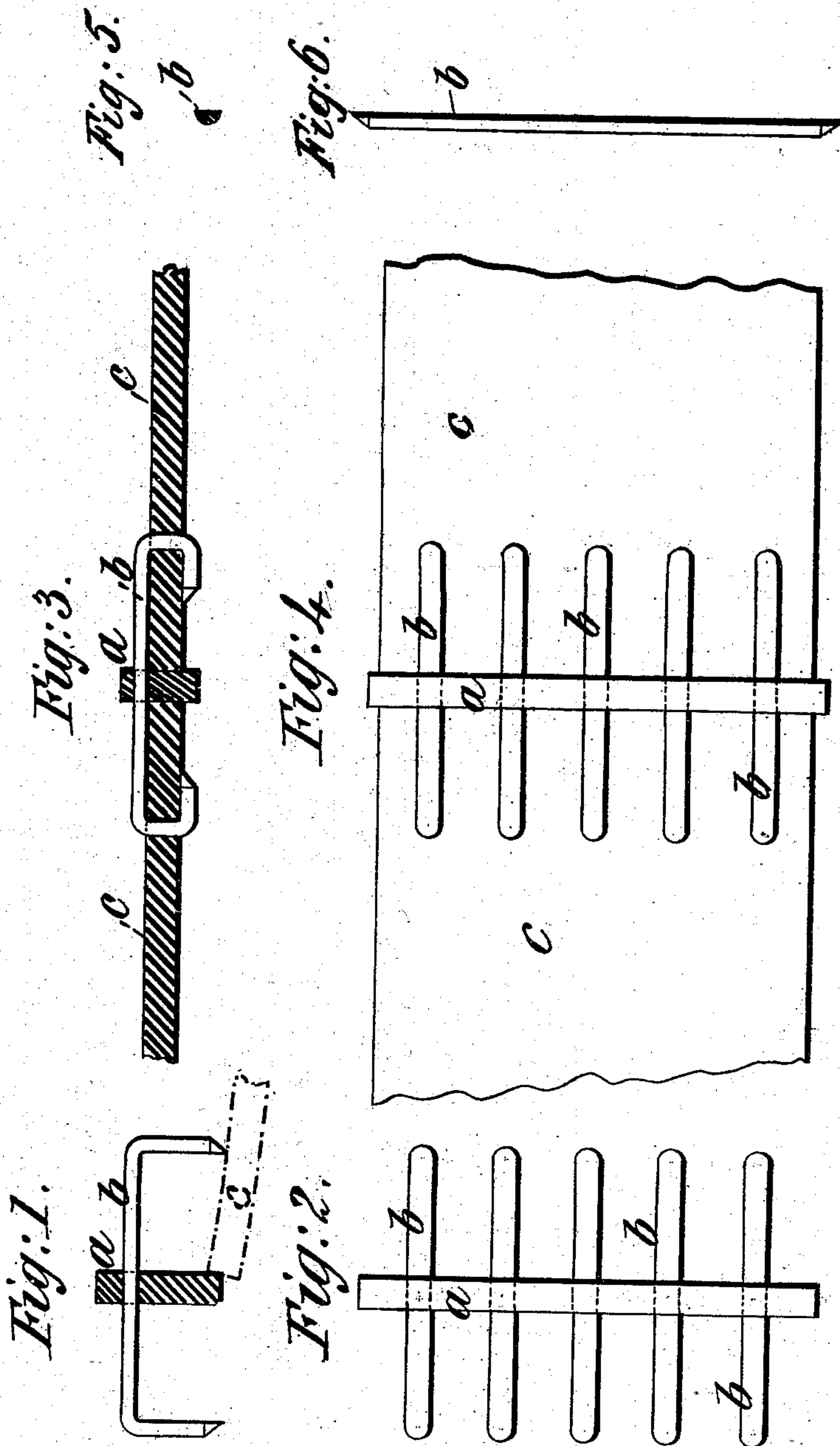


(No Model.)

W. H. STEIL.
BELT FASTENER.

No. 258,148.

Patented May 16, 1882.



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UNITED STATES PATENT OFFICE.

WILLIAM H. STEIL, OF BATTERSEA, COUNTY OF SURREY, ENGLAND.

BELT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 258,148, dated May 16, 1882.

Application filed March 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY STEIL, of Battersea, in the county of Surrey, England, have invented certain Improvements in Belt-Fasteners, of which the following is a specification.

This invention relates to an improved mode of joining the butt-ends of machinery driving-belts, whether the same be made of leather, cotton, or other material, the object of the invention being to dispense with all lacing and sewing, as now in common use, and at the same time to obtain a belt-fastening of great flexibility and strength.

The fastener consists of a strip of leather of suitable depth and length, which is pierced at regular intervals as close to one edge as possible. Into the holes thus made short equal lengths of round or half-round wire are introduced, and equidistant from the center of their length, and also from that of the leather, these lengths of wire are bent to assume the shape of an ordinary staple. The butt-ends of the belt to be joined are placed against the strip of leather, and the staples are inserted into corresponding holes previously made in the belt. When the staples have been driven home the belt is reversed and the points of the staples are turned over inward with pliers or pinchers, and are clinched on the under side of the belt, which operation completes the coupling.

In the accompanying drawings, Figure 1 is a section, and Fig. 2 a plan view, of the improved fastener ready to be inserted into the belt ends. Fig. 3 is a section, and Fig. 4 a plan view, showing the ends of a belt joined together by the fastener. Figs. 5 and 6 are a section and side view of the wire which I prefer to use for the staples.

a is the strip of leather, the length of which is slightly greater than the width of the belt. The depth of this strip I make equal to at least three times the thickness of the belt. Near one edge of the strip *a*, I form a row of holes, into which short lengths of wire *b* are inserted. The opposite ends of these lengths of wire *b* are turned down at points equidistant from the center of their length and from that of the leather, so as to assume the form of an ordinary staple. (See Fig. 1.)

c is the belt, the butt-ends of which are placed against the strip *a*, as shown by the dotted lines, Fig. 1, and the staples are inserted into holes previously made in the belt ends.

When the staples have been forced home the ends are bent over inward and clinched on the under side of the belt, as seen at Fig. 3.

The strip of leather *a* should project slightly beyond the under side of the belt, so that it may rise as they pass the turned-in ends of the staples off the drum or pulley, and thereby prevent noise.

The wire which I find to be best suited for the purposes of this invention is split or half-round cotter-pin wire of charcoal-iron or mild steel.

Although it is preferable to have the fastener in one piece, still for extra-wide belts it may be more convenient to have two or more short fasteners.

I would here remark that in piercing the holes in the strip *a* care must be taken not to make them too large, as the staples when inserted therein should fit tightly, so that they will be prevented from turning round or slipping out before the fastener is applied to the belt.

By the use of this fastener I obtain an unbroken length of belting, great strength and endurance, and a simple fastener that can be applied readily.

I also dispense with butt-pieces on top of the belt, or an overlap, both of which are very objectionable, and cause considerable expense. When it is desired to shorten a belt it will be necessary only to disconnect one end previous to removing the desired portion, and the loose end can be refastened with facility.

In like manner a piece can be added to lengthen a belt, or a bad piece cut out and a new piece provided with one or more fasteners, as the case may be, can be put in.

Having now described my invention of improvements in belt-fasteners and explained the manner of carrying the same into effect, I claim—

A belt-fastening consisting of a series of staples provided with a transverse strip of leather secured thereon as shown, said strip adapted to lie between the ends of the belt and the staples to pass through the ends of the belt, all substantially as set forth, for the purpose described.

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