No. 864,210. PATENTED AUG. 27, 1907.

J. B. STONE.

BELT SPLICER.

APPLICATION FILED NOV. 21, 1906.

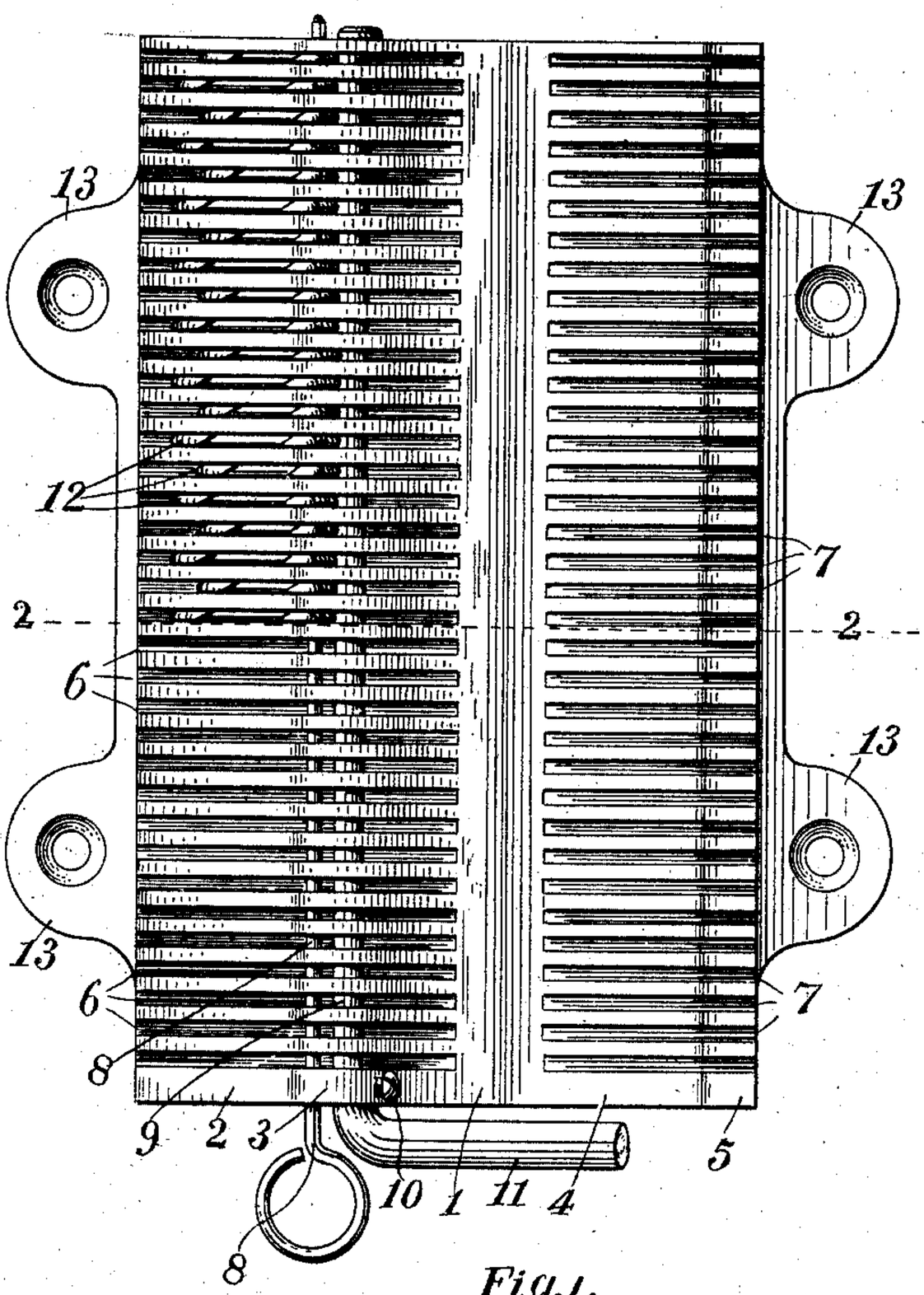

Fig. 1.

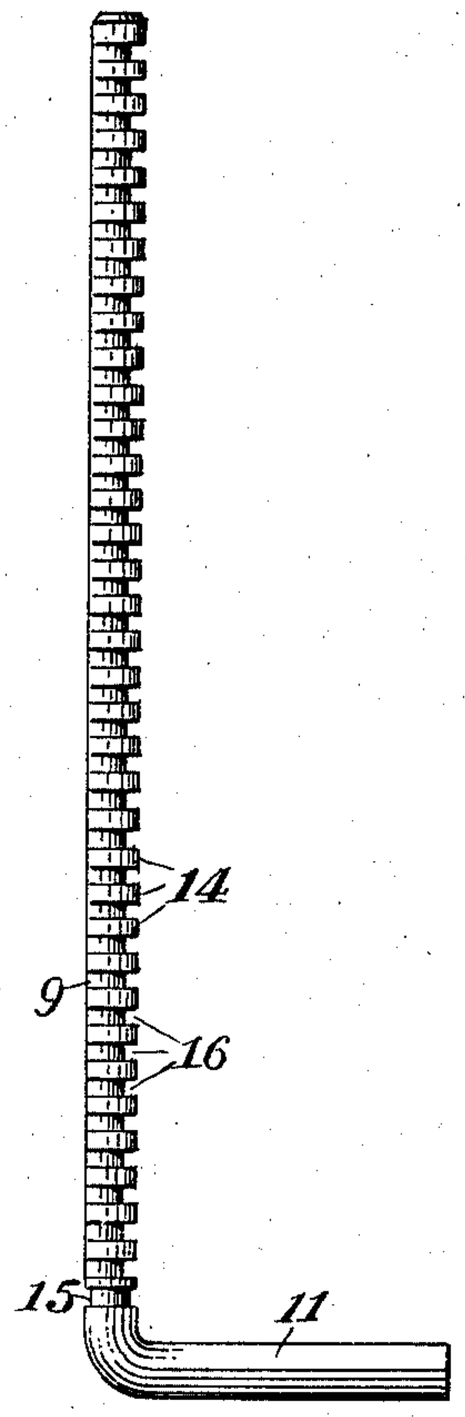

Fig. 3.

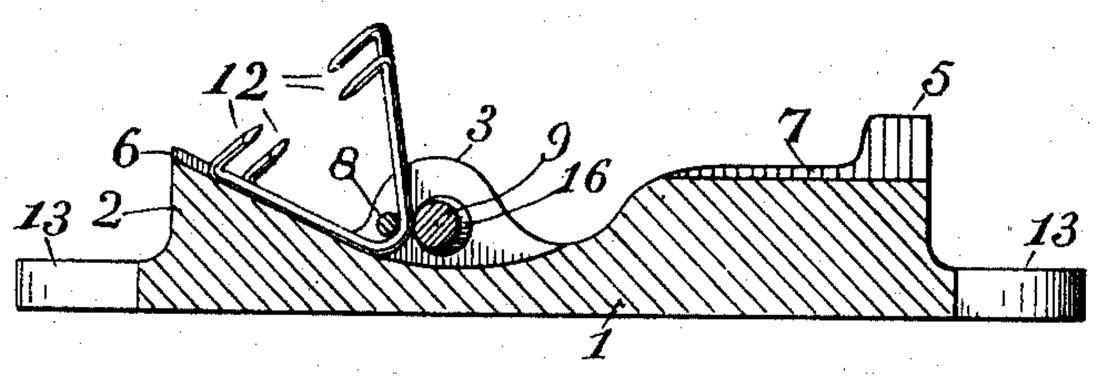

Fig. 2.

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JAMES BARNS STONE, OF LONDON, ENGLAND.

BELT-SPLICER.

No. 864,210. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed November 21, 1906. Serial No. 344,384.

To all whom it may concern:

Be it known that I, JAMES BARNS STONE, a citizen of the United States of America, residing at London, in the county of Middlesex, England, have invented certain new and useful Improvements in Belt-Splicers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in belt splicers, and more particularly to devices for attaching wire loops to the ends of belts, whereby the same may be joined to each other by passing a rod through the loops of each set, and especially to improvements in a device shown in patent of the United States numbered 806,556, dated December 5, 1905, to Mitchell and Gunn; and its object is to provide the same with certain improvements in the nature of a clamping member, to insure correct alinement of the wire loops; grooves in which the wire loops are more accurately held in alinement, and in various features hereinafter more fully described and particularly pointed out in the claims, reference being had to the accompanying drawings in which:

Figure 1. is a plan view of a device embodying my invention, partially filled with wire loops; Fig. 2. a transverse section of the same on the line 2—2 of Fig. 1.; Fig. 3. a detail of the clamping member.

Like numbers refer to like parts in all of the figures.

1 represents a metallic bed plate of any convenient dimensions to conform to the size of wire loops that may be used, and to the width of belts in which the loops are to be inserted. This bed plate is provided with an inwardly inclined portion 2 extending across one side thereof, a ridge 3 extending upward from near the base of the inclined portion, and a raised rib 5 extending across the opposite side of the plate.

At regular intervals in the upper surface of the inwardly inclined portion 2 are a series of grooves 6 to receive one arm of the loops 12. Said grooves also extend through the ridge 3, whereby parallel walls are formed in the ridge between which the upwardly extending arms of the loops are held in vertical parallel planes. Through this ridge 3 are alined openings to receive a rod 8 to engage the inner side of the middle bend forming the eye of the loops and hold the loops in alinement, and near these openings is another series of alined openings to receive a clamping member 9 to engage the loops opposite the rod 8 and force the same firmly against the said rod whereby the loops are brought into accurate alinement so that when inserted in the end of a belt they will each and every one simultaneously contact a rod inserted therein passed through the sets of loops on each belt and thus insure equal tension upon these loops. This clamping member is preferably made laterally adjustable opposite each loop by being provided with eccentric circumferential grooves 16 which are adjusted opposite the respective grooves 6 in the bed plate and the cam portions 14 between said grooves, which are adjusted opposite the walls between the grooves and fit in round openings therein. The longitudinal adjustment of this clamping member is fixed by means of a circumferential groove 15 in which is inserted the end of a screw 10. Grooves 7 serve to receive the lower members of the loops 12, the eyes of which are inserted between the vertical walls in the ridge 5 and are thus held securely in alinement and parallel vertical planes. Lugs 13 are provided by which to secure the plate to a table or bench by screws inserted therein.

In operation the clamping member is adjusted away from the rod 8 by rotating the same in the openings with the deeper part of the cam grooves 16 opposite the rod. The rod being removed, the loops partially formed, as shown, are inserted in the grooves 6 and slide to place down the incline and against the clamping member. The respective arms of each loop are preferably made of unequal length and arranged alternately whereby the ends thereof are not in line when inserted in the belt, thus insuring less weakening of the belt thereby. When the rod 8 is replaced by turning the clamping member about its axis, it will laterally adjust toward the rod and thus clamp each loop firmly against the same, the bearings 14 in the vertical walls preventing any springing of said member.

What I claim is:

1. In a device for attaching wire loops to the ends of belts, a bed plate having grooves to receive the loops, a rod to engage one side of the loops, and a laterally adjustable clamping member to engage the other side of the loops and clamp the same against the rod.

2. In a device for attaching wire loops to belts, a bed plate having an incline and a ridge at the base of the incline, and also having parallel grooves extending down the incline and into the ridge, and two series of alined openings in the ridge portion, a removable rod in one series of openings, and a laterally adjustable clamping member in the other series of openings.

3. In a device for attaching wire loops to the ends of belts, a bed plate having an incline at one side, an upwardly extended portion at the base of the incline and a raised rib, said plate also having parallel grooves in the incline and extending into the upward extension, and grooves extending through the raised rib and laterally therefrom within the upper surface of the plate, and means for holding wire loops in alinement in the inclined grooves.

4. In a device for attaching wire loops to the ends of belts, a bed plate having grooves to receive wire loops, and two series of alined openings, a removable rod in one series of openings, and a laterally adjustable clamping member in the other series of openings, and adapted to clamp the loops against the rod.

5. In a device for attaching wire loops to belts, a bed plate having grooves to receive and space apart wire loops, and also having two series of alined openings through the walls between said grooves, a removable rod in one series

of openings, a rotative rod in the other series of openings, and having circumferential cam-grooves opposite the respective grooves in the bed plate, and means for rotating the last named rod in said openings.

6. In a device for attaching wire loops to belts, a bed plate having an incline and a ridge at the base of the incline, and also having parallel grooves in the incline and ridge, and two series of alined openings in the walls between said grooves, a removable rod in one series of openings, a rod rotating in the other series of openings, and having circumferential cam-grooves opposite the grooves in the bed plate, and means for rotating said last named rod in said opening.

7. In a device for attaching wire loops to belts, a bed plate having an incline at one side, a raised rib at the other side, and a ridge at the base of the incline, and also having grooves in the incline and extending through the ridge, and corresponding grooves in the surface of the plate and extending through the rib, a removable rod extending through alined openings in the ridge and near the base of the incline, and a rod rotative in alined openings in the ridge and located near the first named rod, said last named rod being provided with cam-grooves opposite the grooves in the plate, and means for rotating said rod.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES BARNS STONE.

Witnesses:

A. NUTTING,

H. D. JAMESON.