No. 757,272. PATENTED APR. 12, 1904.

J. B. CONNER.

BELT STRETCHER.

APPLICATION FILED MAY 2, 1903.

NO MODEL.

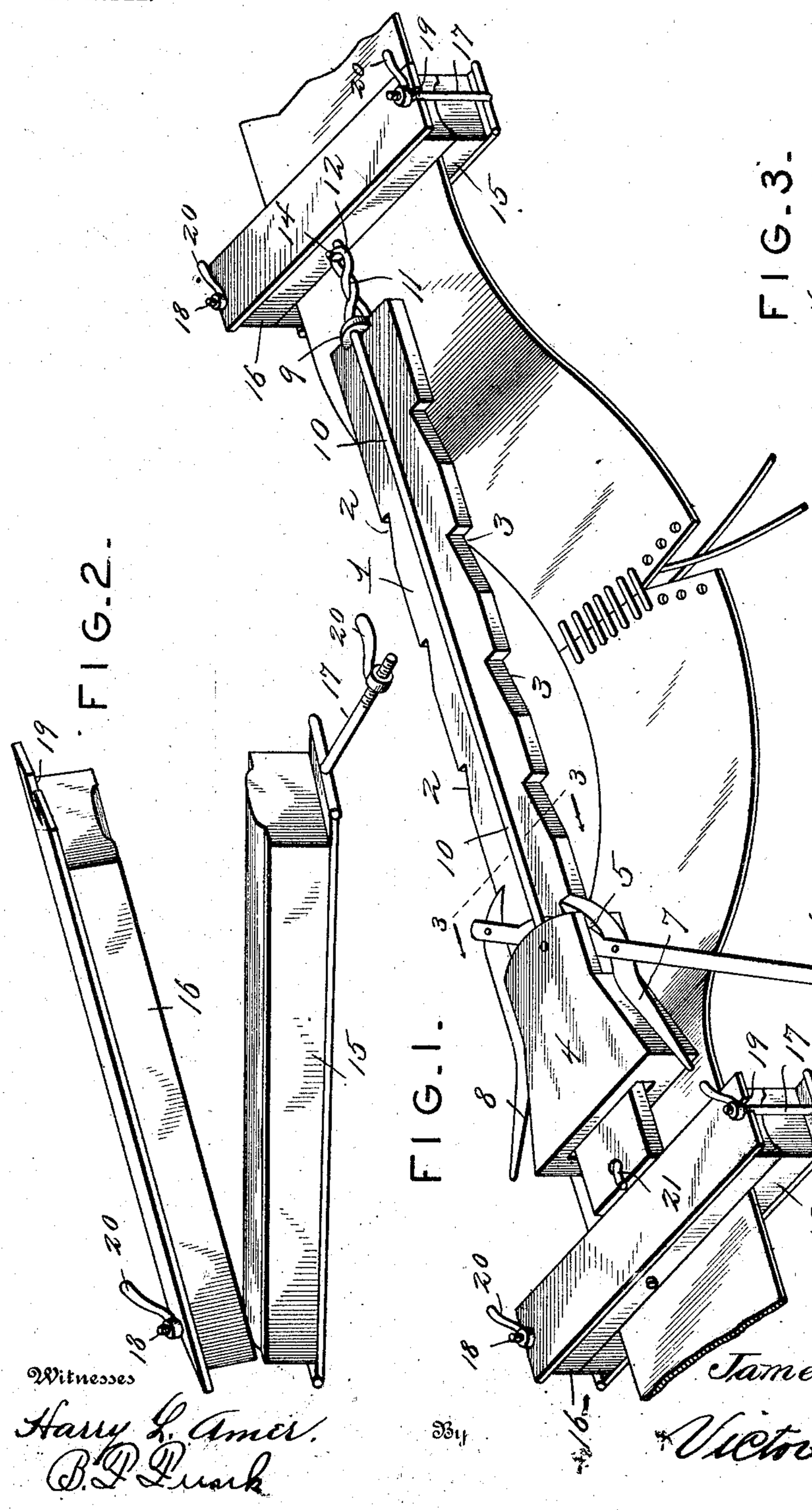

FIG. 1.

FIG. 2.

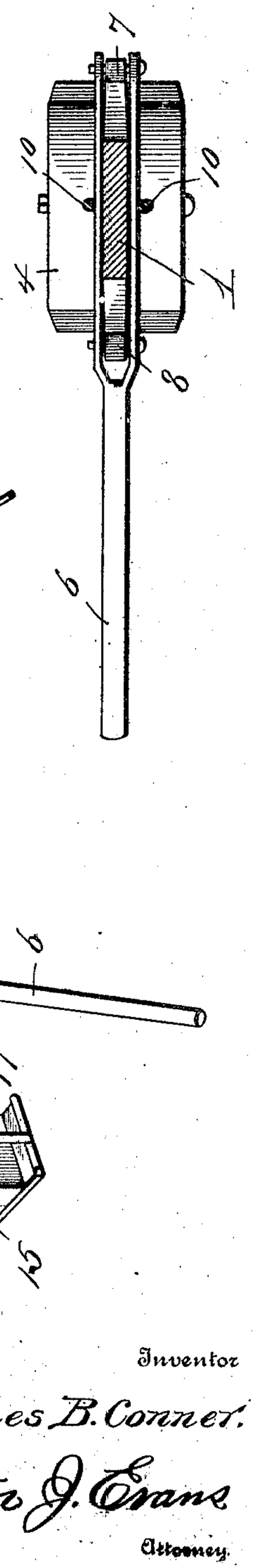

FIG. 3.

Witnesses

Harry L. Amer.

B. D. Lusk

Inventor

James B. Conner.

By

Victor J. Evans

Attorney.

No. 757,272. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

JAMES B. CONNER, OF PENDLETON, INDIANA, ASSIGNOR OF ONE-HALF TO FRED B. AIMAN, OF PENDLETON, INDIANA.

BELT-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 757,272, dated April 12, 1904.

Application filed May 2, 1903. Serial No. 155,386. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. CONNER, a citizen of the United States, residing at Pendleton, in the county of Madison and State of Indiana, have invented new and useful Improvements in Belt-Stretchers, of which the following is a specification.

This invention relates to belt-stretchers; and one of the objects is to provide a belt-stretcher which can be conveniently operated to bring two ends of a belt together, so that they can be laced.

With this and other objects in view the invention consists in providing a rack-bar in clamped engagement with one end of the belt, an adjustable head-block longitudinally movable on the rack-bar, and parallel guide-bars connected to the head-block and passing through guide ears or lugs on the bar, said guide-bars being secured to a clamp fastened to the opposing end of the belt.

The invention also consists in a novel construction of clamp specifically described hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the meeting ends of a belt and showing the stretcher applied. Fig. 2 is a perspective view of one of the clamps, and Fig. 3 is a cross-sectional view through the head-block and operating-lever.

The reference-numeral 1 designates a rack-bar formed with alternating notches 2 and 3 on its respective longitudinal edges. A longitudinally-moving head-block 4 is sleeved upon the rack-bar, and one end thereof is perforated or slotted, as at 5, for the reception of a pivoted lever 6, working in the slot and carrying oppositely-disposed pivoted dogs or pawls 7 and 8, which alternately engage the respective edges of the rack-bar 1. The rack-bar 1 is also provided with oppositely-disposed ears or lugs 9, having perforations through which project the guide rods or bars 10, longitudinally disposed with relation to the rack-bar and connected at their free ends to the head-block. These guide-rods are parallel with each other, being disposed on opposite sides of the rack-bar, and are preferably constructed of a single piece of thick wire which is bent intermediate its ends in the form of a twist (designated by the reference-numeral 11) and so as to form an eye 12, located beyond one extremity of the rack-bar and engaged by a hook 14, formed on one of the clamping-jaws to be referred to hereinafter.

Each jaw consists of two members, one of the members being in the form of a rectangular body (designated by the reference-numeral 15) formed with a convex top surface to fit into the concave lower surface of the upper member 16, so that a firm grip can be had on the belt. Oppositely-disposed pivoted or swinging bolts 17 and 18 are carried by the respective ends of one of the members to be swung into the terminal slots 19, formed in the overlapping flanges projecting from opposite ends of the coinciding member. Suitable tension-nuts 20 are threaded on the free ends of the bolts 17 and 18, whereby the opposing surfaces of the two members can be brought into clamped engagement upon the belt, so as to rigidly fasten the clamp thereto. As before stated, the two clamps are substantially alike; but one of them is fastened direct to the rack-bar 1 by a suitable connection, (designated by the reference-numeral 21.) The other clamp is adjustable with relation to the rack-bar through the medium of the guide-rod 10 and the head-block 14, to which it is secured.

When it is necessary or desirable to remove a portion of the belt or provide a new lacing therefor, the head-block is moved a suitable distance toward one end of the rack-bar, thereby forcing the adjustable clamp a suitable distance away from the other clamp. The upper and lower members or jaws of each of the clamps are then caused to grip the opposing ends of the belt, as shown in Fig. 1. The operator must then vibrate the lever 6, so as to cause first one and then the other dog to engage the notches between the teeth on the rack-bar, so that the two jaws will be moved toward each other. As the head-block is moved up step by step upon the rack-bar

the belt will be stretched. At the same time a certain amount of slack will be taken up, so that the meeting ends of the belt located between the clamps will possess all of the slack. A proper portion of the belt can then be cut off from one of the ends and a new lacing provided. By connecting the adjustable jaw direct to the head-block through the medium of the guide-bars 10 a positive pull will be exerted upon the belt, equalizing the strain between the clamps and their associated parts. It will be observed that the concave groove on each jaw is cut on an arc sufficient to prevent any deterioration to the belt, and while the convex surface of the opposing jaw can be tightly clamped within the concave portion the belt cannot be injured while being stretched. This is a material advantage over jaws or clamps formed with sharp engaging edges, which are liable to mar or tear the belt during the process of stretching.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. A belt-stretcher, consisting of a pair of locking-clamps, each clamp comprising two members, a stretcher-bar attached to one clamp and provided with notches in its opposite edges, a block movably held on the bar, a lever mounted in the block and carrying dogs to engage the said notches, and means connecting the other clamp and the block.

2. A belt-stretcher, comprising two clamping devices, a bar connected to one of the clamping devices, an adjustable block carried by the bar, and means on either side of the bar for connecting the block to the other clamping device.

3. A belt-stretcher, comprising two clamping devices, a bar connected to one of the clamping devices, an adjustable block carried by the bar, and two parallel rods or bars fastened to the block and connected by a twist forming an eye connected to the other clamping device.

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

JAMES B. CONNER.

Witnesses:
R. A. LINGENFELTER,
H. T. CAMPBELL.